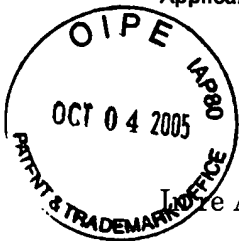


PATENT APPEAL BRIEF  
Application No. 09/698,905  
Examiner: Akers, Geoffrey  
Art Unit: 3625  
Applicant: Patrick D. McDonald



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
Board of Patent Appeals and Interferences  
(LHTLG No. 00,236-A)

Inter Application of:  
Chen, et al.

Serial No. 09/773,103

Filed: January 31, 2001

Title: Broadband Communication  
Access Device

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) Examiner: Ian N. Moore  
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) Group Art Unit: 2661  
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) Confirmation No. 5447  
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**PATENT APPEAL BRIEF**

**37 C.F.R. §1.192**

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### **BRIEF OF APPELLANT**

This is a Patent Appeal Brief submitted under 37 C.F.R. § 1.192 to the Board of Patent Appeals and Interferences from the second rejection of claims 1-26, 28, 30, and 37 of the application. This Appeal Brief is accompanied by the requisite fee set forth in 37 C.F.R. § 41.20(b)(2) for a small entity under 37 C.F.R. § 1.27(a). The Notice of Appeal under 37 C.F.R. § 1.191 was filed on October 4, 2005.

### **REAL PARTY IN INTEREST**

The 3E Technologies International, Inc., formerly Aeptec Microsystems, Inc. is the real-party in interest.

### **RELATED APPEALS AND INTERFERENCES**

There are no related appeals and interferences known to the Appellant.

### **STATUS OF CLAIMS**

The status of the claims is as follows:

1. Claims at filing: 1-37.
2. Claims amended in an Amendment and Response filed December 12, 2004:  
Claims 3, 29, 30 and 31. New claims 38-40 added.
3. Claims pending: 1-40.
4. Claims rejected: 1-26, 28, 30 and 32-37.
5. Claims objected to: 27, 29 and 31
6. Claims allowed: 38-40.

Thus, the claims on appeal are claims 1-26, 28, 30 and 32-37.

### STATUS OF AMENDMENTS

All amendments filed in the application have been entered as understood by the Appellant.

### SUMMARY OF THE CLAIMED SUBJECT MATTER

An integrated phone-based home gateway system (10, 26, 34, 78, 88, 182, FIGS. 1-6B) providing in-home and to-home networking, comprising in combination: a home gateway interface (36, 80, 100, 100', 186) for initializing broadband communications service configurations and provisions (Page 6, lines 8-11, Page 17, lines 15-18, Page 40, lines 8-12, Page 40 line 20 through Page 41 line 2), initializing data communications parameters and for providing routing or bridging (Page 13, lines 6-13, Page 17, lines 15-16) for networking communications a communications interface (46, 48, 102, 104, 108), for connecting to one or more networks (22, 24, 76), for providing data communications, for providing broadband communications and for providing narrow-band communications including voice communications (Page 6, 11-13); a processor (114) for processing information from the one or more networks (22, 24, 70, 76, 86, 94); a display interface (40) (Page 16, line 11-23, Page 18, Lines 1-12) for displaying the information from the one or more networks (22, 24, 70, 76, 86, 94) and a wireless communications interface (52, 84, 107) (Page 16, Line 13, Page 22, Line 12 through Page 24, Line 13, Page 26 Lines 7 through Page 27 Line 5) for connecting to external wireless devices (56, 58, 60, 62, 66, 68, 92).

One of the many problems the Appellant's invention is trying to solve is to provide a gateway device for the home environment that does automatic initialization and

provisioning for broadband communications. The Appellant's application recites "Another problem is that broadband communications are operationally complex. Broadband communications typically include a large number of broadband communications parameters that must be configured before a broadband communications application can be used. Service provisioning is also required to use broadband communications. As is known in the art, service provisioning includes allocating, configuring and maintaining multiple transmission channels and virtual communications paths used for broadband communications. Normally, in the commercial or business environment, trained professionals are required to manage such complexity. It is undesirable however, to have trained networking personnel managing a home network. It may also be unreasonable to expect any home user to have enough networking experience to configure and provision broadband communications in the home environment." (Page 3 lines 13 through Page 4 line 2).

### **GROUPING OF CLAIMS**

Claims 1-37 stand and fall together. A current listing of Claims 1-40 is included in The Claims Appendix.

### **ISSUES PRESENTED FOR REVIEW**

1. Whether Claims 1-3, 5, 8-13, 21, 22 and 30 are unpatentable under 35 U.S.C. 103(a) over Edson (U.S. 6,526,581) in view of Jarett (U.S. 5,911,120).
2. Whether Claim 4 is unpatentable under 35 U.S.C. 103(a) over Edson (U.S. 6,526,581) in view of Jarett (U.S. 5,911,120) and further in view of Yamamoto (U.S. 5,572,575).
3. Whether Claims 14-20 are unpatentable under 35 U.S.C. 103(a) over Edson (U.S. 6,526,581) in view of Jarett (U.S. 5,911,120) and further in view of Gerszberg (6,396,531).
4. Whether Claims 23-26 are unpatentable under 35 U.S.C. 103(a) as being unpatentable over Edson (U.S. 6,526,581) in view of Jarett (U.S. 5,911,120) and further in view of Treyz (6,678,215).
5. Whether Claims 6,7 and 32-37 are unpatentable under 35 U.S.C. 103(a) over Edson (U.S. 6,526,581).

6. Whether Claim 28 is unpatentable under 35 U.S.C. 103(a) in view of Jarett (U.S. 5,911,120), further in view of Gerszberg (6,396,531) and further in view of Treyz (6,678,215).

### ARGUMENT for ISSUE 1

1. To establish a case of *prima facie* obviousness of a claimed invention in the first place, all of the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981 (CCPA 1974).

A prior art reference must be considered in its entirety, i.e., as whole, including portions that would lead away from the claimed invention. *W.L. Gore and Associates, Inc. v. Garlock, Inc.* 721 F.2d 1540 (Fed. Cir. 1983).

A *prima facie* case of obviousness may also be rebutted by showing in the cited art, in any material respect, teaches away from the claimed invention. *In re Geisler*, 116 F.3d 1465, 1471 (Fed. Cir. 1997).

2. Obviousness can only by combining the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347 (Fed. Cir. 1992).

If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no motivation to make the proposed modification. *In Re Gordon*, 733 F.2d 900 (Fed. Cir. 1984).

If a proposed modification or combination of the prior art would change the principle operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti* 270 F.2d 810 (CCPA 1959).

### Argument 1 for Issue 1

Arguments are being made based on independent Claim 1 for simplicity. However, the same arguments apply to the same claim elements of independent Claim 30.

The first element of Claim 1 teaches "An integrated phone-based home gateway

system providing in-home and to-home networking, comprising in combination, a home gateway interface for *initializing broadband communications service* configurations and *provisions*, initializing data communications parameters and for providing routing or *bridging* for networking communications.” The fourth claim element of Claim 1 teaches “a display interface for displaying the information from the one or more networks.”

**(a) The Examiner violated the holding of *In re Royka* because not all of the claim limitations are taught or suggested by the prior art.**

The Examiner asserts that Edson teaches “a home gateway interface for initializing broadband communications service configurations and provisions (see col. 10, lines 1-65; note the combined system (power line interface 123, other interface 125, HPNA interface 121, router 103 and storage 107, see col. 9, lines 7-14) initializes/processes/starts the broadband/DSL/CATV communications services configurations and provisions/requirements by converting between the user’s data protocol (i.e. CATV video, voice or data) to the protocol that can communicate with the external network (i.e., DSL, CATV, or X-link); see col. 5, lines 45 to col. 6, lines 50); for providing routing or bridging for networking communications (see col. 9, lines 52-63, see col. 10, lines 45-67.)” (First Office Action page 4, lines 1-12, and Final Office Action, Page 2, line 16 through Page 4, line 17, Page 29, line 16 through page 30, line ).

First, with respect to the first element of the Claim 1, Edson does not teach, suggest or even mention the claim limitations “*initializing broadband communications service provisions*” or “*bridging*.” This immediately violates the holding of *In re Royka* which states



*all of the claim limitations must be taught or suggested by the prior art to establish case of prima facie obviousness*

The only comment the Examiner made in two office actions with respect to “initializing broadband communications service provisions” was the combined system “provisions/requirements by converting between the user’s data protocol to the protocol that can communicate with the external network. See col. 5, line 45 to col. 6, lines 50). However, Edson at col. 5 lines 45 to col. 6 line 50 simply does not teach, suggest or even mention the claim limitation *initializing broadband communications service provisions* as the Examiner suggests. If the Examiner is stating that initializing broadband communications service provisions are the same as protocol conversion, he has not provided any proof either in Edson or any other prior art of such an equivalence.

The only comment the Examiner made in two office actions with respect to “bridging” was “the router 103 routes the networking communication data between internal interfaces and external network interfaces.” Note how the Examiner simply ignores the claim limitation “bridging” by simply finding a portion in Edson that describes “routing” but does not even mention “bridging.” The Examiner does not mention bridging because is not taught, suggested, or even mentioned by Edson. If the Examiner is stating that bridging is the same as routing, he has not provided any proof either in Edson or any other prior art of such an equivalence.

*The Examiner admits that Edson does not explicitly teach establishing one or more communications channels with the public network and establishing routing or bridging tables. (Final Office Action, Page 19, lines 9-10).*

The Examiner also admits that Edson “*does not explicitly disclose a display interface for displaying the information from the one or more networks.*” (*First Office Action, Page 5, lines 14-15, Final Office Action, Page 4, line 18-19*). This is a second claim element limitation not taught by Edson.

Since Edson does not teach or suggest, at least *two* elements of the Applicant’s Claim 1, by similar arguments, cannot be obvious under the holding of *In re Royka*. Thus, the Examiner has not established a *prima facie* case of obviousness in violation of the holding of *In re Royka*. Therefore, Claim 1 and 30 are not obvious over Edson alone and the 103 rejection should be immediately withdrawn.

**(b) The Examiner violated the holding of *W.L. Gore and Associates, Inc.* because Edson was not considered in its entirety, as a whole, including portions that led away from the claimed invention.**

In trying to establish a *prima facie* case of obviousness, the Examiner violated the holding of *W.L. Gore and Associates, Inc.* by not considering Edson as a whole including portions that lead away from the claimed invention.

First, the Examiner The Examiner asserts that Edson teaches “a home gateway interface for initializing broadband communications service configurations and provisions ...(remaining text same as above and is not repeated)”(*First Office Action* page 4, lines 1-12, and *Final Office Action*, Page 2, line 16 through Page 4, line 17, Page 29, line 16 through page 30, line ).

However, Edson clearly first teaches “From the user's perspective, if the user plugs in a new device specific interface and associated device into the power line 23 or into the in-home telephone wiring 21, the network 11 executes the necessary configuration routines and automatically enables communications for the new device.” (Col. 11, lines 14-19). Thus, Edson clearly teaches the network 11 and not the gateway 13 “initializes communications service configurations.” Therefore, Edson *teaches away* from the Applicant's claim limitation which initializes *broadband communications service configurations and provisions* from the home gateway interface in the integrated phone-based home gateway system.

Second, the Examiner then asserts about Edson that “the gateway comprises CPU, the gateway software, operating system and communications applications; see FIG. 1. The operating system and communications applications are designed to automatically detect a new device and interface to configure when connected to network 11 and to interact with a new device to configure the gateway and the new interface to enable communication through the system, see col. 11, lines 3-14. **The gateway 13 is the only device with CPU, the gateway software, operating system and communications applications.**” (Final Office Action Page 31, line 17 through Page 32, line 4, bold added by Appellant).

This is clearly not true. The Examiner is clearly misstating the teachings of Edson in violation of the patent rules instead of fairly considering the whole reference in violation of *W.L. Gore and Associates*.

First, Edson clearly teaches at Col. 13, lines 26-29 “The device interface 312 includes an analog interface 55 and a microprocessor based controller 59 with associated program and data memory 60.” See also FIG. 1 and FIG. 4. At Col. 13, lines 40-45

Edson teaches, the microprocessor controller 59 controls all operations of the device interface 312, including operations of the analog interface 55, for example to initiate digital communication in response to detection of certain signals from the telephone 32, generating signals to ring the telephone 32, in response to an incoming digital call etc.” At Col. 14, lines 30-39 Edson teaches The microprocessor controller 59 implements the operating system (OS) and the application program interface (API) at level 46. The special programming for the microprocessor controller 59 also implements the device-specific application 47, in this case the application for TCP/IP communication (using PAD 61) and for interaction with a POTS telephone 32. The microprocessor controller 59 controls the analog interface 55 to provide the actual physical interface 48 to the telephone 32.”

The device interface 312 clearly has a processor, operating system, communications applications and gateway functionality and is clearly not included in the gateway 13. See FIG. 1 and 4. The other interfaces 311-314 and 321-323 appear to have similar components and communications functionality as for those described for interface 312. The external device interfaces 311-314 and 321-323 that are not included in the gateway 13.

Clearly the PC 43 also includes a CPU, an operating system, communications applications and gateway software (i.e., help functions and gateway diagnostics, downloaded from the remote server, etc.). Thus, Edson clearly teaches the gateway 13 is clearly not the only device with a CPU, gateway software, an operating system and communications applications as the Examiner mistakenly asserts.

These recitations *teach away* from the claimed invention that includes an integrated phone-based home gateway system which is clearly different than the gateway 13 and device interfaces 311-314, 321-323 taught by Edson.

Second, Edson clearly teaches at Col. 11, lines 20-29 “Assuming adequate security, the operations of the gateway 13 are configurable from any data device in communication with the network 11. For example, the user may set certain options and/or personal preferences from any data device or PC coupled to the in-home media 21, 23. The user also may obtain software, for upgrades or addition of modules for new features, from a server accessible through one or both of the wide area network connections. The remote server communications would also provide help functions and gateway diagnostics.” Edson places a burden on a user to understand where and how to configure devices or obtain software upgrades.

This *teaches away* from the Appellant’s claimed invention that includes an integrated phone-based home gateway system that takes away the burden of the user trying to figure out how to configure the gateway system.

Edson also clearly teaches at Col. 11, lines 30-46, “the user might open a browser on the PC 43 and access a series of web pages to configure the system 11, to obtain help, to perform diagnostics or to obtain software downloads to the PC or the gateway or the device interfaces. The web pages may be in one of the data devices within the in-home network, but many of the pages and associated software modules would reside in a server accessed through one of the public wide area networks.” Edson also places a burden a user to understand where and how to configure devices, perform diagnostics or obtain software downloads for devices.

This *teaches away* from the Appellant's claimed invention that includes an integrated phone-based home gateway system that removes the need for a user to try to understand or configure any parameters for establishing communications, perform diagnostics or obtain software downloads.

Edson also clearly teaches "The vendor of the network 11 may supply the gateway 13 and all of the device specific interfaces." (Col. 13, lines 1-2). Edson further teaches "The API and the matching software in the gateway 13 also provide a new level of protection against problems with new devices or device interfaces. The device-specific applications provided by the vendor does *not* directly communicate with the gateway 13 or other device interfaces on the network 11." (Col. 13, lines 9-13).

This is also *teaches away* from the Applicant's invention which provides an integrated phone-based home gateway with integrated software applications to automatically initialize broadband communications service configurations and provision them while in direct communication with the gateway.

The Applicant's invention allows communications between device-specific applications and direct communications with the gateway to allow automatic initialization and provisioning of broadband communications service configurations and provisions.

The Examiner further asserts "One skilled in the ordinary art would clearly recognize that, gateway 13 is performing 'automatically initializes broadband communication service configuration and provision in the gateway interface,' since neither the appliance 41, TV 42, telephone 32, nor alarm system 34 had a capability or intelligent to manage the in-home communication system as whole. Thus, Edson teaches exactly and clearly the applicant's argued limitations." (Final Office Action, Page 32, lines 5-9).

It is completely irrelevant what one skilled in the ordinary art would clearly recognize that if a cited prior art reference clearly states the contrary. Edson clearly teaches “if the user plugs in a new device specific interface and associated device into the power line 23 or into the in-home telephone wiring 21, the network 11 executes the necessary configuration routines and automatically enables communications for the new device.” (Col. 11, lines 14-19).

The Examiner is cautioned that he can not make up assertions that clearly have no support in the cited references. There is clearly also no support in Edson as the Examiner asserts that since neither the appliance 41, TV 42, telephone 32, nor alarm system 34 had a capability or intelligent to manage the in-home communication system as whole as the Examiner asserts. Edson clearly teaches at Col. 11, lines 20-29 the operations of the gateway 13 are configurable from any data device in communication with the network 11. “Any data device” means any data device including appliance 41, TV 42, telephone 32 or alarms system 34.

Once again the Examiner is clearly misstating the teachings of Edson in violation of the patent rules and picking and choosing only portions of Edson to meet his arguments instead of fairly considering the whole reference in violation of *W.L. Gore and Associates*.

The Appellant has pointed out several instances in which Edson teaches away from the claimed invention when considered in its entirety as a whole. Since the Examiner has not considered Edson in its entirety, he has violated the holding of *W.L. Gore and Associates, Inc.* Therefore, Claims 1 and 30 are not obvious over Edson alone and the 103 rejection should be immediately withdrawn.

(c) The Examiner also violated the holding of *In re Geisler*, by ignoring the material respects, of Edson that teach away from the claimed invention.

Even if the Examiner had established a *prima facie* case of obviousness, which he has not established as discussed in the arguments presented above, a *prima facie* case of obviousness can be rebutted under the holding of *In re Geisler* by showing the cited art teaches away from the claimed invention in at least one material aspect.

First as was described above, Edson clearly first teaches “From the user's perspective, if the user plugs in a new device specific interface and associated device into the power line 23 or into the in-home telephone wiring 21, the network 11 executes the necessary configuration routines and automatically enables communications for the new device.” (Col. 11, lines 14-19). Thus, Edson clearly teaches the network 11 and not the gateway 13 “initializes communications service configurations.”

This *teaches away* in a first material aspect and is in direct contrast to the Appellant's invention which recites a recites an integrated phone-based home gateway system that automatically initializes broadband communications service configurations and provisions from within the integrated phone-based home gateway system.

Second, Edson clearly teaches at Col. 11, lines 20-29 “Assuming adequate security, the operations of the gateway 13 are configurable from any data device in communication with the network 11. For example, the user may set certain options and/or personal preferences from any data device or PC coupled to the in-home media 21, 23. The user also may obtain software, for upgrades or addition of modules for new features, from a server accessible through one or both of the wide area network connections. The remote server communications would also provide help functions and gateway diagnostics.”



Edson clearly places a burden on the user to understand and complete complex broadband provisioning and configurations that are used by the network 11 and/or download upgrades or additional modules for new features from a server.

This clearly *teaches away* and is in direct contrast in a second material aspect to teachings of the Applicant's invention which removed the need for a user to configure the network or integrated phone-based home gateway system by providing a device that automatically initializes broadband communications service configurations and provisions them via its home gateway interface.

Finally, Edson teaches "The vendor of the network 11 may supply the gateway 13 and all of the device specific interfaces." (Col. 13, lines 1-2). Edson further teaches "The API and the matching software in the gateway 13 also provide a new level of protection against problems with new devices or device interfaces. The device-specific application provided by the vendor does *not* directly communicate with the gateway 13 or other device interfaces on the network 11." (Col. 13, lines 9-13).

This is also teaches away in a third material aspect and is direct contrast to the Applicant's invention which provides an integrated phone-based home gateway system with integrated software applications to automatically initialize broadband communications service configurations and provisions them while in direct communication with the integrated software applications and in direct communications with other devices on the network.

Therefore, Edson *teaches away* from the Appellant's invention in several material aspects since the Appellant's invention recites an integrated phone-based home gateway

system that initializes broadband communications service configurations and provisions from within the integrated phone-based home gateway system.

The Applicant has pointed out several material aspects in which Edson teaches away from the claimed invention. Thus, even if the Examiner had established a *prima facie* case of obviousness, which he had not based on the arguments above, the Appellant has rebutted it under the holdings of *In re Giesler*. Therefore, Claims 1 and 30 are not obvious over Edson alone and the 103 rejection should be immediately withdrawn.

### **Argument 2 for Issue 1**

**(a) The Examiner violated the holding of *In re Gordon* because combining the wireless communications interface and display of Jarett with the system of Edson renders the system of Edson unsatisfactory for one or more of its intended purposes.**

The Examiner asserts “Edson teaches that a home gateway can be implemented with wireless internal media. Jarett discloses a wireless communications interface for connecting to an external device and a display interface for displaying the information from the one or more networks. In view of this, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Edson,

for the purpose of providing a home gateway system with a display and wireless connection to the wireless devices and providing the wireless devices with the capability to communicate with both the home gateway base station and cellular base station, as taught by Jarett, since Jarett states the advantages/benefits that it would reduce the cost of the hardware and software implementation to operate the cordless cellular base station.” (Final Office Action Page 5, lines 20-22).

**(i) Wireless Communication Interface of Jarett**

The Examiner is asserting that the wireless communication interface of Jarett when added to Edson to modify Edson, is the same as the wireless communications interface of the claimed invention. However, Jarett actually teaches “the mobile station preferably communicates with the cordless cellular base station utilizing a digital control channel and corresponding digital traffic channels. By utilizing a digital channels, rather than analog and digital channels for communication with the mobile station, the hardware and software required to operate the cordless cellular base station is further reduced and thus the manufacturing costs are reduced. (Col. 3, lines 20-27).

Jarett further teaches “With base stations present in adjoining houses, for example, it is not desirable to enable automatic registration for all mobile station users that come into proximity with a cordless cellular base station, because it is possible for one neighbor to inadvertently automatically register with another neighbor's cellular base station. Advantageously, the automatic registration feature of the present invention allows the cordless cellular base station to restrict automatic registration to those users who have been previously pre-registered with a particular cordless cellular base station. By requiring pre-registration, before automatic registration occurs, accidental automatic

registration with a nearby cordless cellular base station is prevented while still providing the convenience of automatic registration for frequent users. In addition, the mobile station will not attempt to automatically register with a cordless cellular base station unless it has previously registered with that cordless cellular base station and knows on which channels to look for the cordless cellular base station." (Col. 3, lines 35-54).

Jarett also teaches "In a preferred embodiment, the hardware of the cordless cellular base station 10 is very similar to the hardware used for a mobile station, however the functionality of the cordless cellular base station 16 is similar to a base station for a regional cell. The most significant differences between the cordless cellular base station and a typical base station are that the cordless cellular base station preferably has only one transceiver (permitting the use of only one set of transmit and receive frequency channels at one time) and that it supports only digital traffic. These differences permit the cordless cellular base station to be configured in a reasonable size for home use." (Col. 6, line 65 through Col. 7 line 4).

The Examiner also indicated by his own words that Jarett teaches a cellular base station that *reduces the cost of the hardware and software implementation to operate the cordless cellular base station*. However, the *reduced cost* asserted by the Examiner also includes *reduced functionality* of the wireless communications interface described above.

Changing the wireless interface of Edson to include the wireless interface of Jarett with the features just described would render the Edson invention unsatisfactory for one or more of its intended purposes, namely, providing a multi-service in-home network with an open interface (Title) without the restrictions and limitations just described and taught by

Jarett. Thus there is no motivation to combine Jarett with Edson under the holding of *In re Gordon*.

The limitations of the Jarett wireless communications interface also teaches away from the Applicant's invention. The wireless interface of the claimed invention do not have any such limitations recited in the claims or in the specification. Thus, the wireless interface of the claimed invention also cannot be equivalent to the wireless interface of Jarett.

Even with substantial verbage about the wireless communications interface of Jarett and his motivation for combining Jarett with Edson based on Jarett's cordless base station, the Examiner further asserts "The Jarett reference is used to provide a display on the home gateway. The Examiner is not combining to address the above unclaimed limitations. Thus, Jarett has no reason to teach way from the invention." (Final Office Action, Page 34, Lines 5-20).

First of all, as was illustrated above the Examiner clearly and concisely stated twice "Jarett discloses a wireless communications interface for connecting to an external device and a display interface for displaying the information from the one or more networks." The Examiner also asserts as part of his motivation to combine the references was that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Edson, for the purpose of providing a home gateway system with a display and wireless connection to the wireless devices and providing the wireless devices with the capability to communicate with both the home gateway base station and cellular base station, as taught by Jarett, since Jarett states the

advantages/benefits that it would reduce the cost of the hardware and software implementation to operate the cordless cellular base station.”

The Examiner’s assertions are part of the public record. The Examiner cannot state by his own words that these assertions were used to combine references and then after the Appellant’s points out numerous flaws with the Examiner’s assertions, can the Examiner then state his words mean something else. The only reasonable interpretation of the Examiner’s word is to conclude that the Examiner combines Edson with the wireless communications interface of Jarett and the display of Jarett. Based on the arguments above there is clearly no motivation to do so, since modifying Edson to include the wireless interface of Jarett would render Edson unsatisfactory for one or more of its intended purposes under the holding of *In re Gordon*.

**(b) The Examiner violated the holding of *W.L. Gore and Associates, Inc.* because Edson in combination with Jarett was not considered in its entirety, as a whole, including portions that led away from the claimed invention.**

The Examiner further asserts that “*the features upon which the applicant relies (that were just described above, text omitted) are not recited in the rejected claims.*” (Final Office Action, Page 34, lines 13-15).

However, under the holding of *W.L. Gore and Associates*, the Applicant has a right to point out when any portion of cited prior art reference *teaches away* from a claimed invention. The Examiner is asserting the wireless communications interface of the claimed invention is identical to the wireless communications interface of Jarett, even though the

wireless communications interface of Jarett includes a large number of limitations that teach away from the claimed invention and are not included as part of the claimed invention.

After the Appellant points out portions of Jarett that teach away from the claimed wireless interface, the Examiner violates the holding of *W.L. Gore and Associates* by stating differences cited by the Appellant are not recited in the rejected claims. However, the cited differences don't have to be recited in the rejected claims. The Examiner should read and study the holding of *W.L. Gore and Associates*.

**(ii) LCD Display of Jarett**

The Examiner further asserts "The motivation being that by utilizing the LCD to display the caller and calling party information (Jarett) at the gateway unit (Edson) it can increase the subscriber's ability to monitor the call." (Final Office Action, Page 5, lines 26-28).

However, Edson specifically teaches "physically, the gateway 13 may take a number of different forms. One version of the gateway 13 mounts between the studs, like a breaker box in a new home. Another version is a small box that stands on the floor and plugs into the power and phone lines at any convenient location with the premises" (Col. 8, line 66 to Col. 9 line 4)."

Thus, Edson specially teaches away from the Examiner's proposed motivation for combining Edson and Jarett and their combination and modification to try and obtain all of the claimed features of the Applicant's invention changes the principle operation of both Edson and Jarett. If the LCD of Jarett was added to the gateway of Edson, it would not increase the subscriber's ability to monitor the call because the gateway of Edson is either

mounted in a wall between studs or placed on the floor. In either embodiment of Edson, the LCD of Jarett would not increase the subscriber ability to monitor a call unless the subscriber was physically able to view the LCD of Jarett added to the gateway of Edson between studs in a wall or by lying on the floor.

The Examiner further asserts “regarding the argument of the a specific location of the gateway and the motivation will be irrelevant since the applicant is not claiming the specific location of the home gateway nor the display interface...The degree in which determining where to place the gateway at home present no new or unexpected results, so long as the home devices are communicated to the network via the home gateway and the display interface displays the information in a successful way. Therefore to place a home gateway and the display at a specific home (location) would have been routine experimentation and optimization in the absence of criticality.” (Final Office Action, Page 36, line 19, through Page 37, line 7).

Again the Examiner seems to misunderstand the holding of *W.L. Gore and Associates*. However, under the holding of *W.L. Gore and Associates*, the Applicant has a right to point out when any portion of cited prior art reference *teaches away* from a claimed invention. The Applicant need not claim such features for *W.L. Gore and Associates* to apply. If the LCD of Jarett was added to the gateway of Edson, it would not increase the subscriber’s ability to monitor the call because the gateway of Edson is either mounted in a wall between studs or placed on the floor.

Edson teaches at Col. 11, lines 20-29 “For example, the user may set certain options and/or personal preferences from any data device or PC coupled to the in-home media 21, 23.” Thus, Edson clearly teaches that any data device and the PC could be used to access



and display information about the options and personal preferences for components of the network 11 presumably with its own display and clearly not one on the gateway 13.

Edson also teaches at Col. 11, lines 30-46, “the user might open a browser on the PC 43 and access a series of web pages to configure the system 11, to obtain help, to perform diagnostics or to obtain software downloads to the PC or the gateway or the device interface.” The PC 43 has a display (FIG. 1) that is used to access and display information about the components of the network 11 and clearly not one the gateway 13.

In addition, Edson teaches at Col. 15, line 66 through Col. 16, line 2 that “new home appliances are being built with processors, displays and keypads to enable programmable functions. Such devices may be easily adapted for access and control via the network 11.” Thus, Edson teaches new devices will include a display, instead of adding a display to gateway 13. Adding a display to gateway 13 would change a principle operation of Edson, namely providing a simple multi-service in-home network with an open interface since the network information would be displayed on the attached appliances and not the gateway 13.

The Applicant also has pointed several instances where the combination of Edson and Jarett, considered individually or as a whole teaches away from the Applicant’s claimed invention under the holding of *W.L. Gore*. In addition, The Applicant has pointed out several instances where the combination of Edson and Jarett render the prior art invention being modified unsatisfactory for one or more of their intended purposes, so there is NO motivation to combine Edson and Jarett under the holding of *In Re Gordon*. Finally, since the proposed modifications of combining Edson and Jarett still do not teach all of the claim limitations of the Applicant’s invention, thus the combination of Edson and Jarett are not

sufficient to render the Applicant's claims *prima facie* obvious under the holding of *In Re Ratti*.

Edson or Jarrett alone, or the combination thereof, does not make either Claim 1 or 30 obvious because they do not teach or suggest all the claim limitations taught by the applicant. Thus, neither Claim 1 or Claim 30 can be obvious. Therefore, the Applicant requests the Examiner immediately withdraw the rejections of Claims 1 and 30.

**CLAIMS 2, 3, 5, 8-13 and 21-22**

The arguments for Claims 1 and 30 are incorporated by reference. These claims are dependent claims adding additional features to the invention. The Applicant has explained in detail why independent Claims 1 and 30 are not obvious. The Examiner is reminded that if an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is not obvious. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). Thus, Claims 2, 3, 5, 8-13 and 21-22 are not obvious under the holding of *In Re Fine*. Therefore, the Applicant requests the Examiner immediately withdraw the rejections of Claims 2, 3, 5, 8-13 and 21-22.

**ARGUMENT for ISSUE 2**

*The Examiner admits that neither Edson nor Jarrett explicitly discloses a speaker phone.* (First Office Action, Page 10, lines 1-2, Final Office Action Page 9, lines 6-9).

The arguments for Claims 1 and 30 are incorporated by reference. As was explained above, since the Applicant's invention is not obvious over Edson in view of Jarrett, this dependent claim cannot be obvious over Edson in view of Jarrett in view of Yamamoto.

Thus, Claim 4 is not obvious under the holding of *In Re Fine*. Therefore, the Applicant requests the Examiner immediately withdraw the rejection of Claim 4.

### **ARGUMENT for ISSUE 3**

*The Examiner admits that neither Edson nor Jarett explicitly teaches: (1) the display interface displays and accesses voice and video messages; (2) the display interface teaches a graphical representation of a keypad; (3) the display interface displays at least one line of real-time stock quote, weather, headline news, community news, or electronic address information from the Internet; or (4) a video camera.* (First Office Action, Page 20 lines 21-22, Page 11, lines 21-23, Page 12, lines 18-20, Page 13, lines 24-25, Final Office Action, Page 10, lines 7-9, Page 11, lines 16-19, Page 12, lines 11-13, Page 13, lines 20-23).

The arguments for Claims 1 and 30 are incorporated by reference. As was explained above, since the Applicant's invention is not obvious over Edson in view of Jarett, these dependent claims cannot be obvious over Edson in view of Jarett in view of Gerszberg. Thus, Claims 14-20 are not obvious under the holding of *In Re Fine*. Therefore, the Applicant requests the Examiner immediately withdraw the rejections of Claims 14-20.

### **ARGUMENT FOR ISSUE 4**

*The Examiner admits that neither Edson nor Jarett explicitly teaches: (1) a Bluetooth protocol based interface; (2) a Shared Wireless Access Protocol based interface; or (3) Wireless Application Protocol based interface; (4) a short-range wireless communications interface; or (5) a long-range wireless communications interface.* (First Office Action, Page

14, lines 15-18, Page 15, lines 13-14, Page 16, lines 4-5, Page 17, Lines 1-2; Final Office Action Page 14, lines 12-14, Page 15, lines 11-12, Page 16, lines 3-4).

The arguments for Claims 1 and 30 are incorporated by reference. As was explained above, since the Applicant's invention is not obvious over Edson in view of Jarett, these dependent claims cannot be obvious over Edson in view of Jarett in view of Treyz. Thus, Claims 23-26 are not obvious under the holding of *In Re Fine*. Therefore, the Applicant requests the Examiner immediately withdraw the rejections of Claims 23-26.

#### **ARUGMENT FOR ISSUE 5**

*The Examiner admits that Edson does not explicitly teach establishing one or more communications channels with the public network and routing or bridging tables.* (First Office Action, Page 19, lines 11-12, Final Office Action, Page 19, lines 9-10).

The arguments for Claims 1 and 30 are incorporated by reference. As was explained above, since the Applicant's invention is not obvious over Edson these dependent claims cannot be obvious over Edson. Thus, Claims 6,7 are not obvious under the holding of *In Re Fine*.

In addition, with respect to Claims 32-37, as was discussed above for Claims 1 and 30, Edson does not teach or suggest "initializing broadband communications service configurations and provisions from the integrated phone-based home gateway system." In fact Edson instead teaches the network 11 executes the necessary configuration routines enables communications for the new device." (Col. 11, lines 14-19). Thus, Edson teaches the network 11 and not the gateway 13 "initializes broadband communications service configurations and provisions."

Therefore, the Applicant requests the Examiner immediately withdraw the rejections of Claims 6,7 and 32-37.

### **ARGUMENT FOR ISSUE 6**

*The Examiner admits that: (1) Edson does not explicitly teach a display interface for displaying the information from one or more networks; (2) neither Edson nor Jarett explicitly disclose the display interface that accesses voice, video and data messages, wherein the keypad is a key pad for entering alpha-numeric data or video camera for sending and receiving video data to and from the one or more networks; (3) neither Edson nor Jarett nor Gerszberg explicitly discloses a Bluetooth module for interfacing with wireless devices using Bluetooth wireless protocol. (First Office Action, Page 24, lines 3-4, Page 25, lines 15-16, Page 27, lines 20-21, Final Office Action, Page 24, lines 8-9, Page 26, lines 1-2, Page 28, lines 6-7)*

The arguments for Claims 1 and 30 are incorporated by reference. As was explained above, since the Applicant's invention is not obvious over Edson these dependent claims cannot be obvious over Edson in view of Jarett in view of Gerszberg in view of Treyz. Thus, Claim 28 is not obvious under the holdings of at least *In re Royka* and *W.L. Gore*. Therefore, the Applicant requests the Examiner immediately withdraw the rejections of Claim 28.

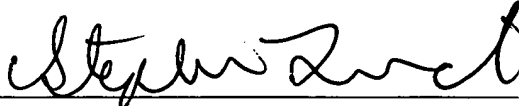
**CONCLUSION**

For the foregoing reasons, Appellant submits that the Examiner's rejection of claims 1-37 is erroneous and not of these claims are obvious over any of the cited references. Accordingly, Appellant respectfully requests that the Appeal Board reverse the Examiner's rejection of claims 1-37 and immediately pass all claims 1-40 to allowance.

Respectively submitted:

Lesavich High-Tech Law Group, P.C.

Date: October 4, 2005

By:   
Stephen Lesavich, PhD  
Registration No. 43,749

**CLAIMS APPENDIX**  
**Claims 1-40**

1. (Original) An integrated phone-based home gateway system providing in-home and to-home networking, comprising in combination:

a home gateway interface for initializing broadband communications service configurations and provisions, initializing data communications parameters and for providing routing or bridging for networking communications;

a communications interface for connecting to one or more networks, for providing data communications, for providing broadband communications and for providing narrow-band communications including voice communications;

a processor for processing information from the one or more networks;

a display interface for displaying the information from the one or more networks;  
and

a wireless communications interface for connecting to external wireless devices.

2. (Original) The integrated phone-based home gateway system of Claim 1, further comprising a portable multi-function handset.

3. (Previously Presented) The integrated phone-based home gateway system of Claim 2, wherein the portable multi-function handset performs the function of at least one of a cordless phone, a mobile phone, a web phone, or a walkie-talkie radio.

4. (Original) The integrated phone-based home gateway system of Claim 1, wherein the communication interface includes a speaker-phone.

5. (Original) The integrated phone-based home gateway system of Claim 1, wherein the communication interface includes a digital subscriber line ("DSL") device and an analog modem.

6. (Original) The integrated phone-based home gateway system of Claim 5, wherein the DSL device includes an asymmetric digital subscriber line ("ADSL") device, symmetric DSL ("SDSL") device, high-bit-rate DSL ("HDSL") device or very-high-bit-rate ("VDSL") device.

7. (Original) The integrated phone-based home gateway system of Claim 1, wherein the communication interface includes voice communications using Plain Old Telephone Service ("POTS") or Voice over Internet Protocol ("VoIP") channels.

8. (Original) The integrated phone-based home gateway system of Claim 1, further comprising:

at least one module for interfacing with an external device.

9. (Original) The integrated phone-based home gateway system of Claim 8, wherein the external device includes a desk-top computer, lap-top computer, notebook computer, a



home security device, a mobile phone, a personal digital assistant, a Internet Protocol-based home appliance, a printer, a facsimile machine, a video camera, or a scanner.

10. (Original) The integrated phone-based home gateway system of Claim 8, wherein the at least one module for interfacing with an external device includes an RJ-11 module, a peripheral component interconnect ("PCI") module, a Universal Serial Bus ("USB") module, a home phoneline network adapter ("HPNA") module, a Personal Computer Memory Card International Association ("PCMCIA") interface module, a Bluetooth module, an infra data association ("IrDA") module, or a wireless interface module.

11. (Original) The integrated phone-based home gateway system of Claim 1, further comprising one or more modular plug-and-play interfaces.

12. (Original) The integrated phone-based home gateway system of Claim 1, wherein the display interface comprises a removable display unit.

13. (Original) The integrated phone-based home gateway system of Claim 12, wherein the removable display unit interfaces with the home gateway interface through a wireless infrared or a wireless radio frequency communications interface.

14. (Original) The integrated phone-based home gateway system of Claim 1, wherein the display interface displays and accesses voice, video and data messages.

15. (Original) The integrated phone-based home gateway system of Claim 14 wherein the data messages include Internet Protocol messages or e-mail messages.

16. (Original) The integrated phone-based home gateway system of Claim 1 wherein the display interface displays a graphical representation of a keypad.

17. (Original) The integrated phone-based home gateway system of Claim 1, wherein the display interface displays at least one line of real-time stock quote, weather, headline news, community news, or a electronic address information from the Internet.

18. (Original) The integrated phone-based home gateway system of Claim 1, further comprising a keypad.

19. (Original) The integrated phone-based home gateway system of Claim 18 wherein the keypad is a graphical representation of a key pad on the display, a numeric key pad, an alpha-numeric key pad or a keyboard.

20. (Original) The integrated phone-based home gateway system of Claim 1, further comprising a video camera.

21. (Original) The integrated phone-based home gateway system of Claim 1 wherein the one or more networks include a public switched telephone network, a regional broadband network, or the Internet.

22. (Original) The integrated phone-based home gateway system of Claim 1 wherein the wireless communication interface includes an infrared or radio frequency wireless communication interface.

23. (Original) The integrated phone-based home gateway system of Claim 1 wherein the wireless communication interface includes a Bluetooth protocol based interface a Shared Wireless Access Protocol based interface or a Wireless Application Protocol based interface.

24. (Original) The integrated phone-based home gateway system of Claim 1 wherein the wireless communication interface includes a short-range wireless communication interface for connecting to external wireless network devices on a wireless piconet.

25. (Original) The integrated phone-based home gateway system of Claim 1 wherein the wireless communication interface includes a long-range wireless communication interface for connecting to external wireless network devices on a wireless wide area network.

26. (Original) The integrated phone-based home gateway system of Claim 22 wherein the wireless communication interface includes a long-range and a short-range radio frequency wireless communication interface.

27. (Original) The integrated phone-based home gateway system of Claim 1, further comprising a computer readable medium having stored therein a plurality of computer software modules with a plurality of instructions executable by the processor, including:

a session manager module for controlling an information session from the one or more networks, controlling a service manager module, controlling an interface manager module, controlling a display manager module and for automatically populating routing and bridging tables and providing routing or bridging for networking communications;

a service manager module for controlling the communications interface and the wireless communication interface, and initializing broadband communications service configurations and provisions and initializing data communications parameters;

an interface manager module for controlling interface modules to external devices;  
and

a display manager module for controlling the display interface and the display of information from the one or more networks.

28. (Original) An integrated phone-based home gateway system providing in-home and to-home networking, comprising in combination:

a home gateway interface for initializing broadband communications service configurations and provisions and for providing routing or bridging for networking communications;

a communications interface for connecting to one or more networks, wherein the communications interface includes a digital subscriber line ("DSL") device and an analog modem;

a processor for processing information from the one or more networks;

a removable display unit for displaying the information from the one or more networks for accessing and displaying voice, video or data messages;

a key pad for entering alpha-numeric data;

a home phone line network adapter ("HPNA") module;

a Bluetooth module for interfacing with wireless devices using the Bluetooth wireless protocol;

a portable multi-function wireless handset for performing cordless phone, a mobile phone, a web phone, or walkie-talkie radio functions;

one or more short-range or long-range wireless interfaces for interfacing with external wireless devices;

one or more RJ-11 interface jacks;

at least one modular plug-and-play interface for interfacing with other external devices; and

an optional video camera for sending and receiving video data to and from the one or more networks.

29. (Previously Presented) The integrated phone-based home gateway system of Claim 28, further comprising a computer readable medium having stored therein a plurality of computer software modules with a plurality of instructions executable by the processor, including:

a session manager module for controlling an information session from the one or more networks, controlling a service manager module, controlling an interface manager module, controlling a display manager module and for automatically populating routing and bridging tables and providing routing or bridging for networking communications;

a service manager module for controlling the communications interface and initializing broadband communications service configurations and provisions and initializing data communications parameters;

an interface manager module for controlling interface modules to external devices;  
and

a display manager module for controlling the removable display unit and the display of information from the one or more networks.

30. (Previously Presented) An integrated phone-based home gateway system conversion system for connecting to existing phone systems, providing in-home and to-home networking, comprising in combination:

a home gateway interface for initializing broadband communications service configurations and provisions and for providing routing or bridging for networking communications;

a communications interface for connecting to one or more networks, for providing data communications, for providing broadband communications and for providing narrow band communications including voice communications;

a processor for processing information from the one or more networks;

a wireless communications interface for connecting to external wireless devices;

a home phone line network adapter ("HPNA") module; and

one or more RJ-11 interface jacks.

31. (Previously Presented) The integrated phone-based home gateway system conversion system of Claim 30, further comprising a computer readable medium having stored therein a plurality of computer software modules with a plurality of instructions executable by the processor, including:

a session manager module for controlling an information session from the one or more networks, controlling a service manager module, controlling an interface manager module, controlling a display manager module and for automatically populating routing and bridging tables and providing routing or bridging for networking communications;

a service manager module for controlling the communications interface and the wireless communication interface, and initializing broadband communications service configurations and provisions and initializing data communications parameters;

an interface manager module for controlling interface modules to external devices;  
and

a display manager module for controlling a display interface and display of information from the one or more networks.

32. (Original) A method for initializing an integrated phone-based home gateway system, comprising:

establishing one or more narrow-band communications channels with a public switched telephone network from the integrated phone-based home gateway system;

establishing one or more broadband communications channels with a public switched telephone network from the integrated phone-based home gateway system;

initializing a data communications interface for a data network from the integrated phone-based home gateway system;

initializing routing or bridging tables on integrated phone-based home gateway system; and

initializing broadband communications service configurations and provisions from the integrated phone-based home gateway system.

33. (Original) The method of Claim 32 further comprising computer readable medium having stored therein instructions for causing a processor to execute the steps of the method.

34. (Original) The method of Claim 32 wherein the step of establishing one or more narrow-band communications channel includes establishing a plain old telephone service ("POTS") channel or a Voice-over-Internet Protocol ("VoIP") channel.



35. (Original) The method of Claim 32 wherein the step of establishing one or more broadband communications channels includes establishing an asymmetric digital subscriber line ("ADSL"), symmetric DSL ("SDSL"), high-bit-rate DSL ("HDSL"), very-high-bit-rate DSL ("VDSL") or an asynchronous transport mode ("ATM") channel.

36. (Original) The method of Claim 32 wherein the step of initializing a data communications interface for a data network from the home gateway interface includes initializing an Internet Protocol ("IP") interface.

37. (Original) The method of Claim 32 wherein the step of initializing broadband communications service configurations and provisions via the home gateway interface includes initializing asymmetric digital subscriber line ("ADSL"), symmetric DSL ("SDSL"), high-bit-rate DSL ("HDSL") very-high-bit-rate DSL ("VDSL") or asynchronous transport mode ("ATM") service configurations and provisions.

38. (Original) An integrated phone-based home gateway system providing in-home and to-home networking, comprising in combination:

a home gateway interface for initializing broadband communications service configurations and provisions, initializing data communications parameters and for providing routing or bridging for networking communications;

a communications interface for connecting to one or more networks, for providing data communications, for providing broadband communications and for providing narrow-band communications including voice communications;

a processor for processing information from the one or more networks;

a display interface for displaying the information from the one or more networks;

a wireless communications interface for connecting to external wireless devices; and

a computer readable medium having stored therein a plurality of computer software modules with a plurality of instructions executable by the processor, including:

a session manager module for controlling an information session from the one or more networks, controlling a service manager module, controlling an interface manager module, controlling a display manager module and for automatically populating routing and bridging tables and providing routing or bridging for networking communications;

a service manager module for controlling the communications interface and the wireless communication interface, and initializing broadband communications service configurations and provisions and initializing data communications parameters;

an interface manager module for controlling interface modules to external devices;  
and

a display manager module for controlling the display interface and the display of information from the one or more networks.

39. (Original) An integrated phone-based home gateway system providing in-home and to-home networking, comprising in combination:

a home gateway interface for initializing broadband communications service configurations and provisions and for providing routing or bridging for networking communications;

a communications interface for connecting to one or more networks, wherein the communications interface includes a digital subscriber line ("DSL") device and an analog modem;

a processor for processing information from the one or more networks;

a removable display unit for displaying the information from the one or more networks for accessing and displaying voice, video or data messages;

a key pad for entering alpha-numeric data;

a home phone line network adapter ("HPNA") module;

a Bluetooth module for interfacing with wireless devices using the Bluetooth wireless protocol;

a portable multi-function wireless handset for performing cordless phone, a mobile phone, a web phone, or walkie-talkie radio functions;

one or more short-range or long-range wireless interfaces for interfacing with external wireless devices;

one or more RJ-11 interface jacks;

at least one modular plug-and-play interface for interfacing with other external devices;

an optional video camera for sending and receiving video data to and from the one or more networks; and

a computer readable medium having stored therein a plurality of computer software modules with a plurality of instructions executable by the processor, including:

a session manager module for controlling an information session from the one or more networks, controlling a service manager module, controlling an interface manager module, controlling a display manager module and for automatically populating routing and bridging tables and providing routing or bridging for networking communications;

a service manager module for controlling the communications interface and the wireless communication interface, and initializing broadband communications service configurations and provisions and initializing data communications parameters;

an interface manager module for controlling interface modules to external devices;  
and

a display manager module for controlling a display interface and display of information from the one or more networks.

40. (Original) An integrated phone-based home gateway system conversion system for connecting to existing phone systems, providing in-home and to-home networking, comprising in combination:

a home gateway interface for initializing broadband communications service configurations and provisions and for providing routing or bridging for networking communications;

a communications interface for connecting to one or more networks, for providing data communications, for providing broadband communications and for providing narrow band communications including voice communications;

a processor for processing information from the one or more networks;

a wireless communications interface for connecting to external wireless devices; a home phone line network adapter ("HPNA") module;

one or more RJ-11 interface jacks; and

a computer readable medium having stored therein a plurality of computer software modules with a plurality of instructions executable by the processor, including:

a session manager module for controlling an information session from the one or more networks, controlling a service manager module, controlling an interface manager module, controlling a display manager module and for automatically populating routing and bridging tables and providing routing or bridging for networking communications;

a service manager module for controlling the communications interface and the wireless communication interface, and initializing broadband communications service configurations and provisions and initializing data communications parameters;

an interface manager module for controlling interface modules to external devices; and

a display manager module for controlling a display interface and display of information from the one or more networks.

**EVIDENCE APPENDIX**

The following documents are attached herewith:

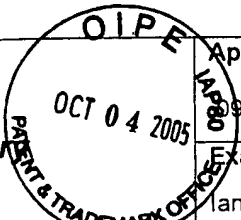
1. Exhibit A, First Office Action (29 pages).
2. Exhibit B, Copy of Final Office Action (39 pages).
3. Exhibit C, Copy of U.S. Patent No. 6,526,581 Edson (15 Pages).
4. Exhibit D, Copy of U.S. Patent No. 5,911,120 Jarett (51 Pages).

**PATENT APPEAL BRIEF**  
**Application No. 09/773,103**  
**Examiner: Moore, Ian N.**  
**Art Unit: 5447**  
**Appellant: 3E Technologies, Inc.**

**RELATED PROCEEDING APPENDIX**

None.

## Office Action Summary



Application No.

9773,103

Examiner

Ian N Moore

Applicant(s)

CHEN ET AL.

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26, 28, 30 and 32-37 is/are rejected.
- 7) ☒ Claim(s) 27, 29 and 31 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.



## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☒ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3,4,5,8.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.



## DETAILED ACTION

### *Priority*

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Taiwan on 10/12/2000. It is noted, however, that applicant has not filed a certified copy of the 89109172 application as required by 35 U.S.C. 119(b).

### *Information Disclosure Statement*

2. It is noted that IDS form PTO-1449 was electronically filed on November 25, 2000 (as paper # 10), thus there is no paper copy. Since the entire application was not filed electronically, examiner is requesting the applicant to re-submitted (via fax or mail) paper# 10 IDS PTO-1449 in order to be considered by the examiner.

### *Drawings*

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “**a removal display unit**” in (**claim 12, claim 28**) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

### *Specification*

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: **Integrated phone-based home gateway system with a broadband communication device.**

***Claim Objections***

5. **Claim 3** is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 3 further limits claim 1. Claim 3 recites, "...wherein the portable multi-function handset..." Claim 1 does not disclose "the portable multi-function handset". However, claim 2 discloses "the portable multi-function handset".

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3,5,8,8-13,21,22, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edson (U.S. 6,526,581) in view of Jarett (U.S. 65,911,120).

**Regarding claims 1 and 30**, Edson'581 discloses an integrated phone-based home gateway system conversion system for connecting to existing phone systems (see **FIG. 1, Gateway 13**), providing in-home and to-home networking (see **FIG. 1, an in-home network 11**), comprising in combination:

Art Unit: 2661

a home gateway interface (see FIG. 2, a combined system of power line interface 123, Other interface 125, HPNA interface 121, router 103, Storage 107; see col. 9, lines 7-14) for initializing broadband communications service configurations and provisions (see col. 10, lines 1-65; note that the combined system initializes/processes/starts the broadband/DSL/CATV communications services configurations and provisions/requirements by converting between the user's data protocol (i.e. CATV video, voice, or data) to the protocol that can communicate with the external network (i.e. DSL, CATV, or X-Link); see col. 5, lines 45 to col. 6, lines 50);

for providing routing or bridging for networking communications (see col. 9, lines 52-63, see col. 10, lines 45-67; note that the router 103 routes the networking communication data between internal interfaces and the external network interfaces);

a communications interface for connecting to one or more networks (see FIG. 2, the combined system of cable modem interface 117, ADSL modem interface 115 and other modem interface 119 connects to one or more external networks; see col. 5, lines 45-57), for providing data communications (see FIG. 2, see FIG. 2, the combined system of cable modem interface 117, ADSL modem interface 115 and other modem interface 119 provides data communications), for providing broadband communications (see FIG. 2, the cable modem interface 117 and/or ADSL modem interface 115 provides broadband communications) and for providing narrow band communications including voice communications (see FIG. 2, ADSL modem interface 115 provides the narrow band voice communications since it is connected to standard telephone 32 via analog line); see col. 10, lines 24-65;

a processor (see **FIG. 2, CPU 105**) for processing information from the one or more networks (see col. 9, lines 8-33, 51-63; see col. 10, lines 65 to col. 11, lines 19; note that **the CPU process the information to/from networks by controlling the router and firewall**);

a wireless communications interface (see **FIG. 1, Other interface 125** which compatible to a wireless local data link) for connecting to external devices (see **FIG. 1, devices (i.e. cordless phone or other in-home wireless media devices) that couple to a wireless local data link**; see col. 10, lines 52--55; see col. 7, lines 10-15);

a home phone line network adapter ("HPNA") module (see **FIG. 2, HPNA interface module 121**); and

one or more RJ-11 interface jacks (see **FIG. 3, each home devices RJ11 switch must use RJ-11 telephone interface jacks in order to tap into twisted pair 21 towards HPNA module**; see col. 7, lines 60-67; see col. 13, lines 23-27).

Edson'581 does not explicitly disclose a display interface for displaying the information from the one or more networks.

However, the above-mentioned claimed limitations are taught by Jarett'120. In particular, Jarett'120 disclose a wireless communications interface (see **FIG. 3, Cordless Cellular Transceiver 23**) for connecting to external wireless devices (see **FIG. 2, cordless Mobile stations 12**); see col. 7, lines 5-16, 49-55;

a display interface (see **FIG. 3, LCD Display 33**) for displaying the information from the one or more networks (see col. 9, lines 5-15; see col. 20, lines 50-65; note that display

**33 of the cordless cellular base station displays the information (i.e. phone numbers) from the networks).**

Note that Edson'581 teaches that a home gateway system can be implemented with a wireless internal media. Jarett'120 teaches a cordless gateway base station with the modem which couples to the public network, a LCD to display the network information, and connects to the home wireless mobile units. In view of this, having the system of Edson'581 and then given the teaching of Jarett'120, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Edson'581, for the purpose of providing a home gateway system with a display and wireless connection to the wireless devices and providing the wireless devices with the capability to communicate with both home gateway base station and the cellular base station, as taught by Jarett'120, since Jarett'120 states the advantages/benefits at col. 2, lines 24-30, see col. 3, lines 25-27 that it would reduce the cost of the hardware and software implementation to operate the cordless cellular base station. The motivation being that by utilizing the LCD to display the caller and calling party information at the gateway unit, it can increase the subscriber's ability to monitor the call. Also, The motivation being that by utilizing the wireless interface at the gateway unit in order to communicate with other external wireless devices, it can reduce the cost of extra wiring in the home.

**Regarding claims 2 and 3, Jarett'120 discloses a portable multi-function handset performs the function of at least one of a cordless phone, a mobile phone, a web phone, or a walkie-talkie radio (see FIG. 1 and FIG. 5; Cordless phone 12; see col. 12, lines 5-44).**

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Edson'581 as taught by Jarett'120 for the same reason stated in Claim 1 above.

**Regarding claim 5**, Edson'581 discloses wherein the communication interface includes a digital subscriber line ("DSL") device and an analog modem (see **FIG. 2, ADSL modem is the combined system of DSL device and an analog modem which connects to ADSL link towards public network; see col. 5, lines 45 to col. 6, lines 26**). Jarett'120 disclose the analog modem (see **FIG. 3, Modem 27; see col. 7, lines 12-15**).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Edson'581 as taught by Jarett'120 for the same reason stated in Claim 1 above.

**Regarding claims 8 and 9**, Edson'581 discloses at least one module for interfacing with an external device (see **FIG. 2, HPNA Interface module 121**) wherein the external device includes a desk-top computer, lap-top computer, notebook computer, a home security device (see **FIG. 1, Alarm system 34**), a mobile phone, a personal digital assistant, a Internet Protocol-based home appliance, a printer (see **FIG. 1, Printer 33**), a facsimile machine, a video camera, or a scanner; see **col. 7, lines 25-43**.

**Regarding claim 10**, Edson'581 discloses wherein the, at least one module for interfacing with an external device includes an RJ-11 module, a peripheral component

Art Unit: 2661

interconnect ("PCI") module, a Universal Serial Bus ("USB") module, a home phone line network adapter ("HPNA") module (see **FIG. 1, D1 interfaces 311, 312, 313 implements HPNA standard interface protocol for digital communication over the twisted pair 21**), a Personal Computer Memory Card International Association ("PCMCIA") interface module, a Bluetooth module, an infra data association ("IrDA") module, or a wireless interface module; see col. 7, lines 60-67.

**Regarding claim 11**, Edson'581 discloses one or more modular plug-and-play interfaces (see col. 4, lines 20-35; note that internal and external interfaces of the gateway are in the form of the plug-in cards. Thus, it is clear that they are plug-and-play interfaces).

**Regarding claims 12 and 13**, Jarett'120 discloses wherein the display interface comprises a removable display unit (see **FIG. 5, LCD display 56 of the mobile station 12**; note that the LCD display 33 of the cordless gateway base station and the LCD display 56 of the mobile station 12 display the same information about the network when the mobile unit is rested on the cordless base station cradle. Thus, LCD display 33 comprises a remote/removable LCD display 56),

wherein the removable display unit interfaces with the home gateway interface through a wireless infrared or a wireless radio frequency communications interface (see **FIG. 5, Wireless Transceivers 50 and 52 of the mobile unit**; see col. 12, lines 30-43);

Art Unit: 2661

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Edson'581 as taught by Jarett'120 for the same reason stated in Claim 1 above.

**Regarding claim 21,** Eon'581 discloses wherein the one or more networks include a public switched telephone network, a regional broadband network, or the Internet (see FIG. 1, gateway 13 couples to public networks such as CATV network, ADSL network, and other public network such as Internet, PSTN, or wireless; **col. 5, lines 45-57, see col. 2, lines 51 to col. 3, lines 5, see col. 4, lines 41-44; see col. 6, lines 18-49).**

**Regarding claims 22,** the combined system of Edson'581 and Jarett'120 discloses a wireless communications interface as described above in claim 1. Jarett'120 discloses an infrared or radio frequency wireless communication interface (**see FIG. 3, Cordless Cellular Transceiver 23).**

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Edson'581 as taught by Jarett'120 for the same reason stated in Claim 1 above.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Edson'581 and Jarett'120 as applied to claim 1 above, and further in view of Yamamoto (U.S. 5,572,575).

**Regarding claim 4,** the combined system of Edson'581 and Jarett'120 discloses the gateway cordless/wireless system and the communication interface as described above in



Art Unit: 2661

claim 1. Neither Edson'581 nor Jarett'120 explicitly discloses a speaker phone (see Yamamoto'575 FIG. 2-3, SP phone 28; col. 5, line 59 to col. 6, lines 6).

However, the above-mentioned claimed limitations are taught by Yamamoto'575. In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Yamamoto'575, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing a speaker phone to a gateway wireless system, as taught by Yamamoto'575, since Yamamoto'575 states the advantages/benefits at col. 1, lines 40-57 that it would provide a speaker phone functionality to the base gateway station even if the handset unit has no speaker phone circuit. The motivation being that by providing a speaker phone to the base gateway station, it can reduce the cost of the speaker phone IC in the handset unit since the handset unit no longer requires to have a speaker phone IC.

8. Claims 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edson'581 and Jarett'120 as applied to claim 1 above, and further in view of Gerszberg (U.S. 6,396,531).

**Regarding claims 14 and 15**, the combined system of Edson'581 and Jarett'120 discloses wherein the display interface displays and accesses data messages as described above in claim 1.

Neither Edson'581 nor Jarett'120 explicitly discloses wherein the display interface displays and accesses voice and video messages.

However, the above-mentioned claimed limitations are taught by Gerszberg'531. In particular, Gerszberg'531 discloses wherein the display interface (see **FIG. 3A-B and FIG.**

**14, Touch screen Display 141)** displays and accesses voice, video and data messages, wherein the data messages includes Internet Protocol messages or e-mail messages (see **FIG. 22; note that the touch screen 141 display and accesses a list of voice, video, and e-mail messages; see col. 12, lines 60 to see col. 13, lines 16; see col. 36, lines 65 to see col. 37, lines 50.)**

In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Gerszberg'531, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing display interface which displays and access voice, video, and e-mail messages to the device, as taught by Gerszberg'531, since Gerszberg'531 states the advantages/benefits at col. 2, lines 44-54 that it would provide an intergraded device which provides integrated access to the services into a single platform with a user friendly interface. The motivation being that by providing a integrated display with an interface which displays and access voice, video, and e-mail messages, it can reduce the cost and increase the user ability to access multiple services from one interface display.

**Regarding claims 16 and 18,** the combined system of Edson'581 and Jarett'120 discloses wherein the display interface displays data messages as described above in claim 1.

Neither Edson'581 nor Jarett'120 explicitly discloses wherein the display interface displays a graphical representation of a keypad (see **Gerszberg'531 FIG. 3A-B and FIG. 14, Touch screen Display 141 comprising a virtual keypad 162; see col. 12, lines 60 to col. 13, lines 16).**

Art Unit: 2661

However, the above-mentioned claimed limitations are taught by Gerszberg'531. In particular, In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Gerszberg'531, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing display interface which displays a touch screen key pad, as taught by Gerszberg'531, since Gerszberg'531 states the advantages/benefits at col. 2, lines 44-54 that it would provide an intergraded device with a touch-sensitive screen display for interactively displaying video and accompanying signals and menu screens such as keypads. The motivation being that by providing a touch-sensitive display screen with a virtual keypad, it can increase the user ability to access multiple menu and services from one interface display.

**Regarding claim 17**, the combined system of Edson'581 and Jarett'120 discloses wherein the display interface displays data messages as described above in claim 1.

Neither Edson'581 nor Jarett'120 explicitly discloses wherein the display interface displays at least one line of real-time stock quote, weather, headline news, community news, or a electronic address information from the Internet (see **Gerszberg'531 FIG. 3A-B and FIG. 14, Touch screen Display 141; see col. 11, lines 45-67; note that the user may select any number of services to display on the video phone such as weather, headlines in the news, stock quotes, neighborhood community services information**).

However, the above-mentioned claimed limitations are taught by Gerszberg'531. In particular, In view of this, having the combined system of Edson'581 and Jarett'120, then

Art Unit: 2661

given the teaching of Gerszberg'531, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing display interface which displays video and data messages such as news and stock quotes, as taught by Gerszberg'531, for the same motivation as stated above in claims 14-15.

**Regarding claim 19**, Gerszberg'531 discloses wherein the keypad is a graphical representation of a key pad on the display (see **FIG. 3A-B, Touch screen Display 141 comprising a virtual keypad 162**), a numeric key pad, an alpha-numeric key pad or a keyboard (see **FIG. 14, an alpha-numeric key pad 162**; see col. 12, lines 60 to col. 13, lines 16).

However, the above-mentioned claimed limitations are taught by Gerszberg'531. In particular, In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Gerszberg'531, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing display interface which displays a touch screen an alpha-numeric key pad, as taught by Gerszberg'531, for the same motivation as stated above in claim 14-15.

**Regarding claim 20**, neither Edson'581 nor Jarett'120 explicitly discloses a video camera (see Gerszberg'531 **FIG. 3A-B, a video camera 145**; see col. 12, lines 38-48).

However, the above-mentioned claimed limitations are taught by Gerszberg'531. In particular, In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Gerszberg'531, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing a video camera, as taught by Gerszberg'531, since Gerszberg'531 states the advantages/benefits at col. 39, lines 20-35 that it would provide a parental control to monitor the children, and per col. 13, lines 1-4, it would provide for viewing a person to whom a user is speaking at each end. The motivation being that by providing a video camera, it can increase the user ability to view the called and calling parties during the call and increase the capability to monitor the children.

9. Claims 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edson'581 and Jarett'120 as applied to claim 1 above, and further in view of Treyz (U.S. 6,678,215).

**Regarding claim 23**, neither Edson'581 nor Jarett'120 does not explicitly a Bluetooth protocol based interface a Shared Wireless Access Protocol based interface or a Wireless Application Protocol based interface (see Treyz'215 FIG. 2, Residential gateway 45 comprising a bluetooth wireless interface; see Treyz'215 col. 11, line 1-12).

However, the above-mentioned claimed limitations are taught by Treyz'215. In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Treyz'215, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing a bluetooth wireless interface to the residential gateway, as taught by

Art Unit: 2661

Treyz'215, since Treyz'215 states the advantages/benefits at col. 10, lines 10-24, col. 9, lines 50-65 that it would provide an alternative way of wireless transmission which can be used to communicate with residential devices. The motivation being that by utilizing bluetooth technology, it can increase the capability of communicating with the other home devices wirelessly.

**Regarding claim 24**, the combine system of Edson'581 and Jarett'120 discloses the wireless communication interface as described above in claim 1. Jarett'120 further discloses a wireless communication interface (see **FIG. 3, Cellular transceiver 23**) for connecting to external wireless network devices (see **FIG. 2, Mobile phones 12**) on a wireless piconet (see **FIG. 2, cordless cell**).

Neither Edson'581 nor Jarett'120 explicitly discloses a short-range wireless communication interface (see **Treyz'215 FIG. 2, Residential gateway 45 comprising a short-range wireless interface link 48 such as HomeRF or Bluetooth in order to communicate with wireless device 12d; see Treyz'215 col. 10, lines 1-26**).

However, the above-mentioned claimed limitations are taught by Treyz'215. In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Treyz'215, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing a bluetooth wireless interface with the short range interface to the residential gateway, as taught by Treyz'215, for the same motivation as described above in claim 23.

**Regarding claim 25**, the combine system of Edson'581 and Jarett'120 discloses the wireless communication interface as described above in claim 1.

Neither Edson'581 nor Jarett'120 explicitly discloses a long-range wireless communication interface (see Treyz'215 FIG. 2, interface link 50; note that Residential gateway 45 comprising a long-range wireless interface link 50 such as wireless paging links or terrestrial/cellular/satellite links in order to directly communicate with wireless device 12a) and a short-range wireless communication interface (see Treyz'215 FIG. 2, Residential gateway 45 comprising a short-range wireless interface link 48 such as HomeRF or Bluetooth in order to communicate with wireless device 12d); see Treyz'215 col. 10, lines 1-26.

However, the above-mentioned claimed limitations are taught by Treyz'215. In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Treyz'215, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing a cellular/bluetooth wireless interface with the long and short range interface links, as taught by Treyz'215, for the same motivation as described above in claim 22 and 23.

**Regarding claim 26**, the combine system of Edson'581 and Jarett'120 discloses the wireless communication interface as described above in claim 1.

Art Unit: 2661

Neither Edson'581 nor Jarett'120 explicitly discloses a long-range wireless communication interface (see **FIG. 2, interface link 50**) for connecting to external wireless network devices (see **FIG. 2, Device 12d**) on a wireless wide area network (see **FIG. 2, communication network 18 is the public wireless wide area network**; see col. 8, lines 41-46; note that **Residential gateway 45 comprising a long-range wireless interface link 50 such as wireless paging links or terrestrial/cellular/satellite links in order to directly communicate with wireless device 12a**; see Treyz'215 col. 10, lines 1-26).

However, the above-mentioned claimed limitations are taught by Treyz'215. In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Treyz'215, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing a cellular/bluetooth wireless interface with the long range interface links towards the other wireless devices via the cellular network, as taught by Treyz'215, for the same motivation as described above in claim 23.

10. Claims 6,7, and 32-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edson'581 in view of well established teaching in art.

**Regarding claim 32**, Edson'581 discloses a method for initializing an integrated phone-based home gateway system (see **FIG. 1, Gateway 13**), comprising:

providing one or more narrow-band communications channels (see **FIG. 1, ADSL link 15 carrying narrow band channels**) with a public switched telephone network (see col. 2, lines 51 to col. 3, lines 5, see col. 4, lines 41-44; **ADSL link connects to public PSTN**) from the integrated phone-based home gateway system (see **FIG. 2, the narrow-band**



Art Unit: 2661

**communication channels are communicated/provided with the PSTN network by ADSL modem since it is connected to standard telephone 32 via analog line. Also see col. 5, lines 45-57);**

providing one or more broadband communications channels (see FIG. 1, ADSL link 15 carrying broad band channels) with a public switched telephone network (see col. 2, lines 51 to col. 3, lines 5, see col. 4, lines 41-44; ADSL link connects to public PSTN) from the integrated phone-based home gateway system (see FIG. 2, the broad-band communication channels are communicated/provided with the PSTN network by ADSL modem; see col. 5, lines 45 to col. 6, lines 50);

initializing a data communications interface (see FIG. 2, the combined system of cable modem interface 117, ADSL modem interface 115 and other modem interface 119 provides data communications) for a data network (see FIG. 1, a data network that couples to the combined system interfaces; see col. 5, lines 45-53) from the integrated phone-based home gateway system (see col. 10, lines 1-65; note that CPU initializes/processes/starts the combined system for the data communications; see col. 5, lines 45 to col. 6, lines 50; see col. 9, lines 8-33, 51-63; see col. 10, lines 65 to col. 11, lines 19);

initializing routing or bridging information (see FIG. 2, a combined system of storage of programming 107, 109, and the router 103) on integrated phone-based home gateway system (see col. 9, lines 52-63, see col. 10, lines 45-67; note that the router 103 routes the networking communication data between internal interfaces and the external network interfaces according to the stored information); and

Initializing broadband communications service configurations and provisions from the integrated phone-based home gateway system (see col. 10, lines 1-65; **note that CPU initializes/process/starts the combined system for the broadband/DSL/CATV communications services configurations and provisions/requirements by converting between the user's data protocol (i.e. CATV video, voice, or data) to the protocol that can communicate with the external network (i.e. DSL, CATV, or X-Link); see col. 5, lines 45 to col. 6, lines 50); see col. 9, lines 8-33, 51-63; see col. 10, lines 65 to col. 11, lines 19.**

Edson'581 does not explicitly disclose establishing one or more communications channels with the public network and routing or bridging tables.

However, the above-mentioned claimed limitations are taught by well-established teaching in art. **In particular, it is well-known in the art the when a gateway system which comprises a plurality of modems, a router, and CPU, and it is connected to the public network, the connection must be established via signaling tones/information before initiating/starts the communication. Also, it is well known in the art that the router and the program/database must have a routing or bridging tables in order to route the data.**

In view of this, having the system of Edson'581 and then given the teaching of well established teaching in art, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Edson'581, for the purpose of utilizing well known mechanism of establishing the connection before initializing the communication and utilizing well known routing table in the gateway router and storage. The

Art Unit: 2661

motivation being that by establishing the connection before initializing the communication, it can increase subscriber's satisfaction by ensuring the reliable connection. Also, The motivation being that by utilizing the routing table, it can increase the router capability to easily identify the data associated with the home network device.

**Regarding claims 6 and 35**, the combined system of Edson'581 and well established teaching in art discloses wherein the step of establishing one or more broadband communications channels as described above in claims 1 and 32.

Edson'581 further discloses an asymmetric digital subscriber line ("ADSL"), symmetric DSL ("SDSL"), high-bit-rate DSL ("HDSL"), very-high-bit-rate DSL ("VDSL") or an asynchronous transport mode ("ATM") channel (see **FIG. 2, ADSL modem 115 towards ADSL link 15; see col. 5, lines 45 to col. 6, lines 26**).

**Regarding claims 7 and 34**, the combined system of Edson'581 and well established teaching in art discloses wherein the step of establishing one or more narrow-band communications channels as described above in claims 1 and 32.

Edson'581 further discloses a plain old telephone service ("POTS") channel (see **FIG. 2, ADSL modem 115 towards ADSL link 15 and see FIG. 4, POTS 32 towards ADSL modem via HPNA; see col. 5, lines 45 to col. 6, lines 26; see col. 13, lines 24 to col. 38**) or a Voice-over-Internet Protocol ("VoIP") channel (see **col. 9, lines 15-32; IP telephony service**).

Art Unit: 2661

**Regarding claim 33**, Edson'581 discloses computer readable medium having stored therein instructions (see **FIG. 2, Hard disk drive 107 or the like for storage of programming 109 and data 11**) for causing a processor to execute the steps of the method (see **FIG. 2, CPU 105 process and control all operations/methods of the gateway 105**); see col. 9, lines 7-14.

**Regarding claim 36**, the combined system of Edson'581 and well established teaching in art discloses initializing a data communications interface for a data network from the integrated phone-based home gateway system as described above in claim 32.

Edson'581 further discloses an Internet Protocol ("IP") interface (see **FIG. 1, the Internet couples to the combined system interfaces (i.e. ADSL, Cable, or other modem)**, thus it is clear that each combined system interface is an IP interface since it connects to the Internet; see col. 5, lines 45-53; see col. 6, lines 18-40).

**Regarding claim 37**, the combined system of Edson'581 and well established teaching in art discloses initializing broadband communications service configurations and provisions via the integrated phone-based home gateway system as described above in claim 32.

Edson'581 further discloses asymmetric digital subscriber line ("ADSL"), symmetric DSL ("SDSL"), high-bit-rate DSL ("HDSL") very-high-bit-rate DSL ("VDSL") or asynchronous transport mode ("ATM") (see col. 10, lines 1-65; note that after establishing the connection/path, CPU initializes/process/starts the ADSL modem for ADSL

Art Unit: 2661

**communications services configurations and provisions/requirements by converting between the user's data protocol (i.e. video, voice, and data) to the protocol that can communicate with the external network (i.e. ADSL); see col. 5, lines 45 to col. 6, lines 50); see col. 9, lines 8-33, 51-63; see col. 10, lines 65 to col. 11, lines 19.**

11. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Edson'581, Jarett'120, Gerszberg'531, and further in view of Treyz'215.

**Regarding claim 28**, Edson'581 discloses an integrated phone-based home gateway system conversion system (see **FIG. 1, Gateway 13**), providing in-home and to-home networking (see **FIG. 1, an in-home network 11**), comprising in combination:

a home gateway interface (see **FIG. 2, a combined system of power line interface 123, Other interface 125, HPNA interface 121, router 103, Storage 107**; see col. 9, lines 7-14) for initializing broadband communications service configurations and provisions (see col. 10, lines 1-65; note that the combined system initializes/processes/starts the broadband/DSL/CATV communications services configurations and provisions/requirements by converting between the user's data protocol (i.e. CATV video, voice, or data) to the protocol that can communicate with the external network (i.e. DSL, CATV, or X-Link); see col. 5, lines 45 to col. 6, lines 50);

a communications interface for connecting to one or more networks (see **FIG. 2, the combined system of cable modem interface 117, ADSL modem interface 115 and other modem interface 119** connects to one or more external networks; see col. 5, lines 45-57), for providing data communications (see **FIG. 2, see FIG. 2, the combined system of cable**

Art Unit: 2661

**modem interface 117, ADSL modem interface 115 and other modem interface 119 provides data communications), for providing broadband communications (see FIG. 2, the cable modem interface 117 and/or ADSL modem interface 115 provides broadband communications) and for providing narrow band communications including voice communications (see FIG. 2, ADSL modem interface 115 provides the narrow band voice communications since it is connected to standard telephone 32 via analog line); see col. 10, lines 24-65;**

**a processor (see FIG. 2, CPU 105) for processing information from the one or more networks (see col. 9, lines 8-33, 51-63; see col. 10, lines 65 to col. 11, lines 19; note that the CPU process the information to/from networks by controlling the router and firewall);**

**a wireless communications interface (see FIG. 1, Other interface 125 which compatible to a wireless local data link) for connecting to external devices (see FIG. 1, devices (i.e. cordless phone or other in-home wireless media devices) that couple to a wireless local data link; see col. 10, lines 52--55; see col. 7, lines 10-15);**

**a home phone line network adapter ("HPNA") module (see FIG. 2, HPNA interface module 121); and**

**one or more RJ-11 interface jacks (see FIG. 3, each home devices RJ11 switch must use RJ-11 telephone interface jacks in order to tap into twisted pair 21 towards HPNA module; see col. 7, lines 60-67; see col. 13, lines 23-27).**

**one or more modular plug-and-play interfaces for interfacing with other external devices (see col. 4, lines 20-35; note that internal and external interfaces of the gateway**

Art Unit: 2661

**are in the form of the plug-in cards. Thus, it is clear that they are plug-and-play interfaces)**

Edson'581 does not explicitly disclose a display interface for displaying the information from the one or more networks.

However, the above-mentioned claimed limitations are taught by Jarett'120. In particular, Jarett'120 disclose a wireless communications interface (see FIG. 3, **Cordless Cellular Transceiver 23**) for connecting to external wireless devices (see FIG. 2, **cordless Mobile stations 12**); see col. 7, lines 5-16, 49-55;

a removable display unit (see FIG. 3, **LCD Display 33**) for displaying the information from the one or more networks (see col. 9, lines 5-15; see col. 20, lines 50-65; see FIG. 5, **LCD display 56 of the mobile station 12**; note that the **LCD display 33 of the cordless gateway base station and the LCD display 56 of the mobile station 12 display the same information about the network when the mobile unit is rested on the cordless base station cradle. Thus, LCD display 33 comprises a remote/removable LCD display 56 from the networks**);

a portable multi-function handset performs the function of at least one of a cordless phone, a mobile phone, a web phone, or a walkie-talkie radio (see FIG. 1 and FIG. 5; **Cordless phone 12**; see col. 12, lines 5-44).

Note that Edson'581 teaches that a home gateway system can be implemented with a wireless internal media. Jarett'120 teaches a cordless gateway base station with the modem which couples to the public network, a LCD to display the network information, and connects to the home wireless mobile units. In view of this, having the system of Edson'581

Art Unit: 2661

and then given the teaching of Jarett'120, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Edson'581, for the purpose of providing a home gateway system with a display and wireless connection to the wireless devices and providing the wireless devices with the capability to communicate with both home gateway base station and the cellular base station, as taught by Jarett'120, since Jarett'120 states the advantages/benefits at col. 2, lines 24-30, see col. 3, lines 25-27 that it would reduce the cost of the hardware and software implementation to operate the cordless cellular base station. The motivation being that by utilizing the LCD to display the caller and calling party information at the gateway unit, it can increase the subscriber's ability to monitor the call. Also, The motivation being that by utilizing the wireless interface at the gateway unit in order to communicate with other external wireless devices, it can reduce the cost of extra wiring in the home.

Neither Edson'581 nor Jarett'120 explicitly discloses wherein the display interface displays and accesses voice, video and data messages;

wherein the keypad is a key pad for entering an alpha-numeric data;

an optional video camera for sending and receiving video data to and from the one or more networks;

However, the above-mentioned claimed limitations are taught by Gerszberg'531. In particular, Gerszberg'531 discloses wherein the display interface (see **FIG. 3A-B and FIG. 14, Touch screen Display 141**) displays and accesses voice, video and data messages (see **FIG. 22**; note that the touch screen 141 display and accesses a list of voice, video, and e-



Art Unit: 2661

mail messages; see col. 12, lines 60 to see col. 13, lines 16; see col. 36, lines 65 to see col. 37, lines 50.);

a keypad (see FIG. 3A-B, Touch screen Display 141 comprising a virtual keypad 162) for entering an alpha-numeric data (see FIG. 14, an alpha-numeric key pad 162; see col. 12, lines 60 to col. 13, lines 16);

an optional video camera for sending and receiving video data to and from the one or more networks (see Gerszberg'531 FIG. 3A-B, a video camera 145 sends and receives data to/from networks; see col. 12, lines 38-48).

In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Gerszberg'531, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing display interface which displays and access voice, video, and e-mail messages to the device, as taught by Gerszberg'531, since Gerszberg'531 states the advantages/benefits at col. 2, lines 44-54 that it would provide an intergraded device which provides integrated access to the services into a single platform with a user friendly interface. The motivation being that by providing a integrated display with an interface which displays and access voice, video, and e-mail messages, it can reduce the cost and increase the user ability to access multiple services from one interface display.

In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Gerszberg'531, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing display interface which displays a touch screen key

Art Unit: 2661

pad, as taught by Gerszberg'531, since Gerszberg'531 states the advantages/benefits at col. 2, lines 44-54 that it would provide an intergraded device with a touch-sensitive screen display for interactively displaying video and accompanying signals and menu screens such as keypads. The motivation being that by providing a touch-sensitive display screen with a virtual keypad, it can increase the user ability to access multiple menu and services from one interface display.

In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Gerszberg'531, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing a video camera, as taught by Gerszberg'531, since Gerszberg'531 states the advantages/benefits at col. 39, lines 20-35 that it would provide a parental control to monitor the children, and per col. 13, lines 1-4, it would provide for viewing a person to whom a user is speaking at each end. The motivation being that by providing a video camera, it can increase the user ability to view the called and calling parties during the call and increase the capability to monitor the children.

Neither Edson'581, Jarett'120, nor Gerszberg'531 explicitly discloses a Bluetooth module for interfacing with wireless devices using the Bluetooth wireless protocol (see **Treyz'215 FIG. 2, Residential gateway 45 comprising a bluetooth wireless interface; see Treyz'215 col. 11, line 1-12; also note that when the residential gateway has a Bluetooth interface, it must be interfaced with Bluetooth wireless device**);

one or more short-range or long-range wireless interfaces for interfacing with external wireless devices (see **Treyz'215 FIG. 2, Residential gateway 45 comprising a short-range**

Art Unit: 2661

**wireless interface link 48 such as HomeRF or Bluetooth in order to communicate with external wireless device 12d; see Treyz'215 col. 10, lines 1-26).**

However, the above-mentioned claimed limitations are taught by Treyz'215. In view of this, having the combined system of Edson'581, Jarett'120 and Gerszberg'531, then given the teaching of Treyz'215, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing a bluetooth wireless interface to the residential gateway and for the purpose of providing a bluetooth wireless interface with the short range interface to the residential gateway, as taught by Treyz'215, since Treyz'215 states the advantages/benefits at col. 10, lines 10-24, col. 9, lines 50-65 that it would provide an alternative way of wireless transmission which can be used to communicate with residential devices. The motivation being that by utilizing bluetooth technology, it can increase the capability of communicating with the other home devices wirelessly.

***Allowable Subject Matter***

12. Claim 27, 29 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2661

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian N Moore whose telephone number is 703-605-1531. The examiner can normally be reached on M-F: 9-5.

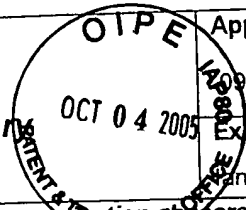
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Vanderpuye can be reached on 703-308-7828. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

INM  
6/9/04



KENNETH VANDERPUYE  
PRIMARY EXAMINER

<b>Office Action Summary</b> 	Application No. 1299/773,103	Applicant(s) CHEN ET AL.	
	Examiner N Moore	Art Unit 2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2004.
- 2a) ☒ This action is **FINAL**.      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 38-40 is/are allowed.
- 6) ☒ Claim(s) 1-26, 28, 30 and 32-37 is/are rejected.
- 7) ☒ Claim(s) 27, 29 and 31 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.



#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| <p>1) <input type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br/>           Paper No(s)/Mail Date <u>11-25-2003</u>.</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)<br/>           Paper No(s)/Mail Date. _____</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</p> <p>6) <input type="checkbox"/> Other: _____</p> |
|---|---|

## **DETAILED ACTION**

### ***Response to Amendment***

1. A copy of the information disclosure statement (IDS) previously submitted on November 25, 2003 (paper number 10) is acknowledged. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.
2. An objection to the drawing is withdrawn.
3. The objection on title of the invention is withdrawn.
4. Claim objections, on claim 3 is withdrawn since they are being amended accordingly.
5. Claims 1-26,28,30,32-37 are rejected by the same ground of rejections.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-3,5,8,8-13,21,22, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edson (U.S. 6,526,581) in view of Jarett (U.S. 65,911,120).

**Regarding claim 30**, Edson'581 discloses an integrated phone-based home gateway system conversion system for connecting to existing phone systems (see

Art Unit: 2661

FIG. 1, Gateway 13), providing in-home and to-home networking (see FIG. 1, an in-home network 11), comprising in combination:

a home gateway interface (see FIG. 2, a combined system of power line interface 123, Other interface 125, HPNA interface 121, router 103, Storage 107; see col. 9, lines 7-14) for initializing broadband communications service configurations and provisions (see col. 10, lines 1-65; note that the combined system initializes/processes/starts the broadband/DSL/CATV communications services configurations and provisions/requirements by converting between the user's data protocol (i.e. CATV video, voice, or data) to the protocol that can communicate with the external network (i.e. DSL, CATV, or X-Link); see col. 5, lines 45 to col. 6, lines 50);

for providing routing or bridging for networking communications (see col. 9, lines 52-63, see col. 10, lines 45-67; note that the router 103 routes the networking communication data between internal interfaces and the external network interfaces);

a communications interface for connecting to one or more networks (see FIG. 2, the combined system of cable modem interface 117, ADSL modem interface 115 and other modem interface 119 connects to one or more external networks; see col. 5, lines 45-57), for providing data communications (see FIG. 2, see FIG. 2, the combined system of cable modem interface 117, ADSL modem interface 115 and other modem interface 119 provides data communications), for providing broadband communications (see FIG. 2, the cable modem interface 117 and/or ADSL modem

interface 115 provides broadband communications) and for providing narrow band communications including voice communications (see FIG. 2, ADSL modem interface 115 provides the narrow band voice communications since it is connected to standard telephone 32 via analog line); see col. 10, lines 24-65;

a processor (see FIG. 2, CPU 105) for processing information from the one or more networks (see col. 9, lines 8-33, 51-63; see col. 10, lines 65 to col. 11, lines 19; note that the CPU process the information to/from networks by controlling the router and firewall);

a wireless communications interface (see FIG. 1, Other interface 125 which compatible to a wireless local data link) for connecting to external devices (see FIG. 1, devices (i.e. cordless phone or other in-home wireless media devices) that couple to a wireless local data link; see col. 10, lines 52--55; see col. 7, lines 10-15);

a home phone line network adapter ("HPNA") module (see FIG. 2, HPNA interface module 121); and

one or more RJ-11 interface jacks (see FIG. 3, each home devices RJ11 switch must use RJ-11 telephone interface jacks in order to tap into twisted pair 21 towards HPNA module; see col. 7, lines 60-67; see col. 13, lines 23-27).

Edson'581 does not explicitly disclose a display interface for displaying the information from the one or more networks.

However, the above-mentioned claimed limitations are taught by Jarett'120. In particular, Jarett'120 disclose a wireless communications interface (see FIG. 3,



Cordless Cellular Transceiver 23) for connecting to external wireless devices (see FIG. 2, cordless Mobile stations 12); see col. 7, lines 5-16, 49-55;

a display interface (see FIG. 3, LCD Display 33) for displaying the information from the one or more networks (see col. 9, lines 5-15; see col. 20, lines 50-65; note that display 33 of the cordless cellular base station displays the information (i.e. phone numbers) from the networks).

Note that Edson'581 teaches that a home gateway system can be implemented with a wireless internal media. Jarrett'120 teaches a cordless gateway base station with the modem which couples to the public network, a LCD to display the network information, and connects to the home wireless mobile units. In view of this, having the system of Edson'581 and then given the teaching of Jarrett'120, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Edson'581, for the purpose of providing a home gateway system with a display and wireless connection to the wireless devices and providing the wireless devices with the capability to communicate with both home gateway base station and the cellular base station, as taught by Jarrett'120, since Jarrett'120 states the advantages/benefits at col. 2, lines 24-30, see col. 3, lines 25-27 that it would reduce the cost of the hardware and software implementation to operate the cordless cellular base station. The motivation being that by utilizing the LCD to display the caller and calling party information at the gateway unit, it can increase the subscriber's ability to monitor the call. Also, The motivation being that by utilizing the wireless interface at the gateway unit in order to

communicate with other external wireless devices, it can reduce the cost of extra wiring in the home.

**Regarding Claim 1**, the method claim, which has substantially disclosed all the limitations of the respective system claim 30. Therefore, it is subjected to the same rejection.

**Regarding claims 2 and 3**, Jarett'120 discloses a portable multi-function handset performs the function of at least one of a cordless phone, a mobile phone, a web phone, or a walkie-talkie radio (see FIG. 1 and FIG. 5; Cordless phone 12; see col. 12, lines 5-44). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Edson'581 as taught by Jarett'120 for the same reason stated in Claim 1 above.

**Regarding claim 5**, Edson'581 discloses wherein the communication interface includes a digital subscriber line ("DSL") device and an analog modem (see FIG. 2, ADSL modem is the combined system of DSL device and an analog modem which connects to ADSL link towards public network; see col. 5, lines 45 to col. 6, lines 26). Jarett'120 disclose the analog modem (see FIG. 3, Modem 27; see col. 7, lines 12-15). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Edson'581 as taught by Jarett'120 for the same reason stated in Claim 1 above.

**Regarding claims 8 and 9**, Edson'581 discloses at least one module for interfacing with an external device (see FIG. 2, HPNA Interface module 121) wherein the external device includes a desk-top computer, lap-top computer, notebook

computer, a home security device (see FIG. 1, Alarm system 34), a mobile phone, a personal digital assistant, a Internet Protocol-based home appliance, a printer (see FIG. 1, Printer 33), a facsimile machine, a video camera, or a scanner; see col. 7, lines 25-43.

**Regarding claim 10**, Edson'581 discloses wherein the, at least one module for interfacing with an external device includes an RJ-11 module, a peripheral component interconnect ("PCI") module, a Universal Serial Bus ("USB") module, a home phone line network adapter ("HPNA") module (see FIG. 1, D1 interfaces 311, 312, 313 implements HPNA standard interface protocol for digital communication over the twisted pair 21), a Personal Computer Memory Card International Association ("PCMCIA") interface module, a Bluetooth module, an infra data association ("IrDA") module, or a wireless interface module; see col. 7, lines 60-67.

**Regarding claim 11**, Edson'581 discloses one or more modular plug-and-play interfaces (see col. 4, lines 20-35; note that internal and external interfaces of the gateway are in the form of the plug-in cards. Thus, it is clear that they are plug-and-play interfaces).

**Regarding claims 12 and 13**, Jarett'120 discloses wherein the display interface comprises a removable display unit (see FIG. 5, LCD display 56 of the mobile station 12; note that the LCD display 33 of the cordless gateway base station and the LCD display 56 of the mobile station 12 display the same information about the network when the mobile unit is rested on the cordless base station cradle. Thus, LCD display 33 comprises a remote/removable LCD display 56),

wherein the removable display unit interfaces with the home gateway interface through a wireless infrared or a wireless radio frequency communications interface (see FIG. 5, Wireless Transceivers 50 and 52 of the mobile unit; see col. 12, lines 30-43). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Edson'581 as taught by Jarett'120 for the same reason stated in Claim 1 above.

**Regarding claim 21,** Edon'581 discloses wherein the one or more networks include a public switched telephone network, a regional broadband network, or the Internet (see FIG. 1, gateway 13 couples to public networks such as CATV network, ADSL network, and other public network such as Internet, PSTN, or wireless; col. 5, lines 45-57, see col. 2, lines 51 to col. 3, lines 5, see col. 4, lines 41-44; see col. 6, lines 18-49).

**Regarding claims 22,** the combined system of Edson'581 and Jarett'120 discloses a wireless communications interface as described above in claim 1. Jarett'120 discloses an infrared or radio frequency wireless communication interface (see FIG. 3, Cordless Cellular Transceiver 23). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Edson'581 as taught by Jarett'120 for the same reason stated in Claim 1 above.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Edson'581 and Jarett'120 as applied to claim 1 above, and further in view of Yamamoto (U.S. 5,572,575).

**Regarding claim 4**, the combined system of Edson'581 and Jarett'120 discloses the gateway cordless/wireless system and the communication interface as described above in claim 1. Neither Edson'581 nor Jarett'120 explicitly discloses a speaker phone (see Yamamoto'575 FIG. 2-3, SP phone 28; col. 5, line 59 to col. 6, lines 6).

However, the above-mentioned claimed limitations are taught by Yamamoto'575. In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Yamamoto'575, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing a speaker phone to a gateway wireless system, as taught by Yamamoto'575, since Yamamoto'575 states the advantages/benefits at col. 1, lines 40-57 that it would provide a speaker phone functionality to the base gateway station even if the handset unit has no speaker phone circuit. The motivation being that by providing a speaker phone to the base gateway station, it can reduce the cost of the speaker phone IC in the handset unit since the handset unit no longer requires to have a speaker phone IC.

9. Claims 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edson'581 and Jarett'120 as applied to claim 1 above, and further in view of Gerszberg (U.S. 6,396,531).

**Regarding claim 14**, the combined system of Edson'581 and Jarett'120 discloses wherein the display interface displays and accesses data messages as described above in claim 1.

Neither Edson'581 nor Jarett'120 explicitly discloses wherein the display interface displays and accesses voice and video messages. However, the above-mentioned claimed limitations are taught by Gerszberg'531. In particular, Gerszberg'531 discloses wherein the display interface (see FIG. 3A-B and FIG. 14, Touch screen Display 141) displays and accesses voice, video and data messages, (see FIG. 22; note that the touch screen 141 display and accesses a list of voice, video, and e-mail messages; see col. 12, lines 60 to see col. 13, lines 16; see col. 36, lines 65 to see col. 37, lines 50.)

In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Gerszberg'531, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing display interface which displays and access voice, video, and e-mail messages to the device, as taught by Gerszberg'531, since Gerszberg'531 states the advantages/benefits at col. 2, lines 44-54 that it would provide an intergraded device which provides integrated access to the services into a single platform with a user friendly interface. The

motivation being that by providing a integrated display with an interface which displays and access voice, video, and e-mail messages, it can reduce the cost and increase the user ability to access multiple services from one interface display.

**Regarding claim 15**, Gerszberg'531 discloses wherein the data messages includes Internet Protocol messages or e-mail messages (see FIG. 22; note that the touch screen 141 display and accesses a list of voice, video, and e-mail messages; see col. 12, lines 60 to see col. 13, lines 16; see col. 36, lines 65 to see col. 37, lines 50.) Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett as taught by Gerszberg'531 for the same reason stated in Claim 14 above.

**Regarding claims 16 and 18**, the combined system of Edson'581 and Jarett'120 discloses wherein the display interface displays data messages as described above in claim 1.

Neither Edson'581 nor Jarett'120 explicitly discloses wherein the display interface displays a graphical representation of a keypad (see Gerszberg'531 FIG. 3A-B and FIG. 14, Touch screen Display 141 comprising a virtual keypad 162; see col. 12, lines 60 to col. 13, lines 16).

However, the above-mentioned claimed limitations are taught by Gerszberg'531. In particular, In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Gerszberg'531, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose

Art Unit: 2661

of providing display interface which displays a touch screen key pad, as taught by Gerszberg'531, since Gerszberg'531 states the advantages/benefits at col. 2, lines 44-54 that it would provide an intergraded device with a touch-sensitive screen display for interactively displaying video and accompanying signals and menu screens such as keypads. The motivation being that by providing a touch-sensitive display screen with a virtual keypad, it can increase the user ability to access multiple menu and services from one interface display.

**Regarding claim 17**, the combined system of Edson'581 and Jarett'120 discloses wherein the display interface displays data messages as described above in claim 1.

Neither Edson'581 nor Jarett'120 explicitly discloses wherein the display interface displays at least one line of real-time stock quote, weather, headline news, community news, or a electronic address information from the Internet (see Gerszberg'531 FIG. 3A-B and FIG. 14, Touch screen Display 141; see col. 11, lines 45-67; note that the user may select any number of services to display on the video phone such as weather, headlines in the news, stock quotes, neighborhood community services information).

However, the above-mentioned claimed limitations are taught by Gerszberg'531. In particular, In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Gerszberg'531, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose



of providing display interface which displays video and data messages such as news and stock quotes, as taught by Gerszberg'531, for the same motivation as stated above in claims 14-15.

**Regarding claim 19**, Gerszberg'531 discloses wherein the keypad is a graphical representation of a key pad on the display (see FIG. 3A-B, Touch screen Display 141 comprising a virtual keypad 162), a numeric key pad, an alpha-numeric key pad or a keyboard (see FIG. 14, an alpha-numeric key pad 162; see col. 12, lines 60 to col. 13, lines 16).

However, the above-mentioned claimed limitations are taught by Gerszberg'531. In particular, In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Gerszberg'531, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing display interface which displays a touch screen an alpha-numeric key pad, as taught by Gerszberg'531, for the same motivation as stated above in claim 14-15.

**Regarding claim 20**, neither Edson'581 nor Jarett'120 explicitly discloses a video camera (see Gerszberg'531 FIG. 3A-B, a video camera 145; see col. 12, lines 38-48).

However, the above-mentioned claimed limitations are taught by Gerszberg'531. In particular, In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Gerszberg'531, it would have

Application/Control Number: 09/773,103

Art Unit: 2661

been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing a video camera, as taught by Gerszberg'531, since Gerszberg'531 states the advantages/benefits at col. 39, lines 20-35 that it would provide a parental control to monitor the children, and per col. 13, lines 1-4, it would provide for viewing a person to whom a user is speaking at each end. The motivation being that by providing a video camera, it can increase the user ability to view the called and calling parties during the call and increase the capability to monitor the children.

10. Claims 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edson'581 and Jarett'120 as applied to claim 1 above, and further in view of Treyz (U.S. 6,678,215).

**Regarding claim 23**, neither Edson'581 nor Jarett'120 does not explicitly a Bluetooth protocol based interface a Shared Wireless Access Protocol based interface or a Wireless Application Protocol based interface (see Treyz'215 FIG. 2, Residential gateway 45 comprising a bluetooth wireless interface; see Treyz'215 col. 11, line 1-12).

However, the above-mentioned claimed limitations are taught by Treyz'215. In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Treyz'215, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing a bluetooth wireless interface

Art Unit: 2661

to the residential gateway, as taught by Treyz'215, since Treyz'215 states the advantages/benefits at col. 10, lines 10-24, col. 9, lines 50-65 that it would provide an alternative way of wireless transmission which can be used to communicate with residential devices. The motivation being that by utilizing bluetooth technology, it can increase the capability of communicating with the other home devices wirelessly.

**Regarding claim 24**, the combine system of Edson'581 and Jarett'120 discloses the wireless communication interface as described above in claim 1. Jarett'120 further discloses a wireless communication interface (see FIG. 3, Cellular transceiver 23) for connecting to external wireless network devices (see FIG. 2, Mobile phones 12) on a wireless piconet (see FIG. 2, cordless cell).

Neither Edson'581 nor Jarett'120 explicitly discloses a short-range wireless communication interface (see Treyz'215 FIG. 2, Residential gateway 45 comprising a short-range wireless interface link 48 such as HomeRF or Bluetooth in order to communicate with wireless device 12d; see Treyz'215 col. 10, lines 1-26). However, the above-mentioned claimed limitations are taught by Treyz'215. In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Treyz'215, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing a bluetooth wireless interface with the short range interface to the residential gateway, as taught by Treyz'215, for the same motivation as described above in claim 23.

**Regarding claim 25**, the combine system of Edson'581 and Jarett'120 discloses the wireless communication interface as described above in claim 1.

Neither Edson'581 nor Jarett'120 explicitly discloses a long-range wireless communication interface (see Treyz'215 FIG. 2, interface link 50; note that Residential gateway 45 comprising a long-range wireless interface link 50 such as wireless paging links or terrestrial/cellular/satellite links in order to directly communicate with wireless device 12a) and a short-range wireless communication interface (see Treyz'215 FIG. 2, Residential gateway 45 comprising a short-range wireless interface link 48 such as HomeRF or Bluetooth in order to communicate with wireless device 12d); see Treyz'215 col. 10, lines 1-26. However, the above-mentioned claimed limitations are taught by Treyz'215. In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Treyz'215, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing a cellular/bluetooth wireless interface with the long and short range interface links, as taught by Treyz'215, for the same motivation as described above in claim 22 and 23.

**Regarding claim 26**, the combine system of Edson'581 and Jarett'120 discloses the wireless communication interface as described above in claim 1.

Neither Edson'581 nor Jarett'120 explicitly discloses a long-range wireless communication interface (see FIG. 2, interface link 50) for connecting to external wireless network devices (see FIG. 2, Device 12d) on a wireless wide area network

(see FIG. 2, communication network 18 is the public wireless wide area network; see col. 8, lines 41-46; note that Residential gateway 45 comprising a long-range wireless interface link 50 such as wireless paging links or terrestrial/cellular/satellite links in order to directly communicate with wireless device 12a; see Treyz'215 col. 10, lines 1-26). However, the above-mentioned claimed limitations are taught by Treyz'215. In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Treyz'215, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing a cellular/bluetooth wireless interface with the long range interface links towards the other wireless devices via the cellular network, as taught by Treyz'215, for the same motivation as described above in claim 23.

11. Claims 6,7, and 32-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edson'581 in view of well established teaching in art.

**Regarding claim 32,** Edson'581 discloses a method for initializing an integrated phone-based home gateway system (see FIG. 1, Gateway 13), comprising:

providing one or more narrow-band communications channels (see FIG. 1, ADSL link 15 carrying narrow band channels) with a public switched telephone network (see col. 2, lines 51 to col. 3, lines 5, see col. 4, lines 41-44; ADSL link connects to public PSTN) from the integrated phone-based home gateway system (see FIG. 2, the narrow-band communication channels are communicated/provided

Art Unit: 2661

with the PSTN network by ADSL modem since it is connected to standard telephone 32 via analog line. Also see col. 5, lines 45-57);

providing one or more broadband communications channels (see FIG. 1, ADSL link 15 carrying broad band channels) with a public switched telephone network (see col. 2, lines 51 to col. 3, lines 5, see col. 4, lines 41-44; ADSL link connects to public PSTN) from the integrated phone-based home gateway system (see FIG. 2, the broad-band communication channels are communicated/provided with the PSTN network by ADSL modem; see col. 5, lines 45 to col. 6, lines 50);

initializing a data communications interface (see FIG. 2, the combined system of cable modem interface 117, ADSL modem interface 115 and other modem interface 119 provides data communications) for a data network (see FIG. 1, a data network that couples to the combined system interfaces; see col. 5, lines 45-53) from the integrated phone-based home gateway system (see col. 10, lines 1-65; note that CPU initializes/processes/starts the combined system for the data communications; see col. 5, lines 45 to col. 6, lines 50; see col. 9, lines 8-33, 51-63; see col. 10, lines 65 to col. 11, lines 19);

initializing routing or bridging information (see FIG. 2, a combined system of storage of programming 107, 109, and the router 103) on integrated phone-based home gateway system (see col. 9, lines 52-63, see col. 10, lines 45-67; note that the router 103 routes the networking communication data between internal interfaces and the external network interfaces according to the stored information); and

Art Unit: 2661

Initializing broadband communications service configurations and provisions from the integrated phone-based home gateway system (see col. 10, lines 1-65; note that CPU initializes/process/starts the combined system for the broadband/DSL/CATV communications services configurations and provisions/requirements by converting between the user's data protocol (i.e. CATV video, voice, or data) to the protocol that can communicate with the external network (i.e. DSL, CATV, or X-Link); see col. 5, lines 45 to col. 6, lines 50); see col. 9, lines 8-33, 51-63; see col. 10, lines 65 to col. 11, lines 19.

Edson'581 does not explicitly disclose establishing one or more communications channels with the public network and routing or bridging tables.

However, the above-mentioned claimed limitations are taught by well-established teaching in art. In particular, it is well-known in the art the when a gateway system which comprises a plurality of modems, a router, and CPU, and it is connected to the public network, the connection must be established via signaling tones/information before initiating/starts the communication. Also, it is well known in the art that the router and the program/database must have a routing or bridging tables in order to route the data.

In view of this, having the system of Edson'581 and then given the teaching of well established teaching in art, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Edson'581, for the purpose of utilizing well known mechanism of establishing the connection before initializing the communication and utilizing well known routing table in the

gateway router and storage. The motivation being that by establishing the connection before initializing the communication, it can increase subscriber's satisfaction by ensuring the reliable connection. Also, The motivation being that by utilizing the routing table, it can increase the router capability to easily identify the data associated with the home network device.

**Regarding claim 6**, the combined system of Edson'581 and well established teaching in art discloses wherein the step of establishing one or more broadband communications channels as described above in claims 1.

Edson'581 further discloses an asymmetric digital subscriber line ("ADSL"), symmetric DSL ("SDSL"), high-bit-rate DSL ("HDSL"), very-high-bit-rate DSL ("VDSL") or an asynchronous transport mode ("ATM") channel (see FIG. 2, ADSL modem 115 towards ADSL link 15; see col. 5, lines 45 to col. 6, lines 26).

**Regarding claim 7**, the combined system of Edson'581 and well-established teaching in art discloses wherein the step of establishing one or more narrow-band communications channels as described above in claim 1.

Edson'581 further discloses a plain old telephone service ("POTS") channel (see FIG. 2, ADSL modem 115 towards ADSL link 15 and see FIG. 4, POTS 32 towards ADSL modem via HPNA; see col. 5, lines 45 to col. 6, lines 26; see col. 13, lines 24 to col. 38) or a Voice-over-Internet Protocol ("VoIP") channel (see col. 9, lines 15-32; IP telephony service).

**Regarding claim 33**, Edson'581 discloses computer readable medium having stored therein instructions (see FIG. 2, Hard disk drive 107 or the like for storage of



programming 109 and data 11) for causing a processor to execute the steps of the method (see FIG. 2, CPU 105 process and control all operations/methods of the gateway 105); see col. 9, lines 7-14.

**Regarding Claim 34**, the claim, which has substantially disclosed all the limitations of the respective claim 7. Therefore, it is subjected to the same rejection.

**Regarding Claim 35**, the claim, which has substantially disclosed all the limitations of the respective claim 6. Therefore, it is subjected to the same rejection.

**Regarding claim 36**, the combined system of Edson'581 and well established teaching in art discloses initializing a data communications interface for a data network from the integrated phone-based home gateway system as described above in claim 32.

Edson'581 further discloses an Internet Protocol ("IP") interface (see FIG. 1, the Internet couples to the combined system interfaces (i.e. ADSL, Cable, or other modem), thus it is clear that each combined system interface is an IP interface since it connects to the Internet; see col. 5, lines 45-53; see col. 6, lines 18-40).

**Regarding claim 37**, the combined system of Edson'581 and well established teaching in art discloses initializing broadband communications service configurations and provisions via the integrated phone-based home gateway system as described above in claim 32.

Edson'581 further discloses asymmetric digital subscriber line ("ADSL"), symmetric DSL ("SDSL"), high-bit-rate DSL ("HDSL") very-high-bit-rate DSL ("VDSL") or asynchronous transport mode ("ATM") (see col. 10, lines 1-65; note that

Art Unit: 2661

after establishing the connection/path, CPU initializes/process/starts the ADSL modem for ADSL communications services configurations and provisions/requirements by converting between the user's data protocol (i.e. video, voice, and data) to the protocol that can communicate with the external network (i.e. ADSL); see col. 5, lines 45 to col. 6, lines 50); see col. 9, lines 8-33, 51-63; see col. 10, lines 65 to col. 11, lines 19.

12. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Edson'581, Jarett'120, Gerszberg'531, and further in view of Treyz'215.

**Regarding claim 28**, Edson'581 discloses an integrated phone-based home gateway system conversion system (see FIG. 1, Gateway 13), providing in-home and to-home networking (see FIG. 1, an in-home network 11), comprising in combination:

a home gateway interface (see FIG. 2, a combined system of power line interface 123, Other interface 125, HPNA interface 121, router 103, Storage 107; see col. 9, lines 7-14) for initializing broadband communications service configurations and provisions (see col. 10, lines 1-65; note that the combined system initializes/processes/starts the broadband/DSL/CATV communications services configurations and provisions/requirements by converting between the user's data protocol (i.e. CATV video, voice, or data) to the protocol that can communicate with the external network (i.e. DSL, CATV, or X-Link); see col. 5, lines 45 to col. 6, lines 50);

a communications interface for connecting to one or more networks (see FIG. 2, the combined system of cable modem interface 117, ADSL modem interface 115 and other modem interface 119 connects to one or more external networks; see col. 5, lines 45-57), for providing data communications (see FIG. 2, see FIG. 2, the combined system of cable modem interface 117, ADSL modem interface 115 and other modem interface 119 provides data communications), for providing broadband communications (see FIG. 2, the cable modem interface 117 and/or ADSL modem interface 115 provides broadband communications) and for providing narrow band communications including voice communications (see FIG. 2, ADSL modem interface 115 provides the narrow band voice communications since it is connected to standard telephone 32 via analog line); see col. 10, lines 24-65;

a processor (see FIG. 2, CPU 105) for processing information from the one or more networks (see col. 9, lines 8-33, 51-63; see col. 10, lines 65 to col. 11, lines 19; note that the CPU process the information to/from networks by controlling the router and firewall);

a wireless communications interface (see FIG. 1, Other interface 125 which compatible to a wireless local data link) for connecting to external devices (see FIG. 1, devices (i.e. cordless phone or other in-home wireless media devices) that couple to a wireless local data link; see col. 10, lines 52--55; see col. 7, lines 10-15);

a home phone line network adapter ("HPNA") module (see FIG. 2, HPNA interface module 121); and

Art Unit: 2661

one or more RJ-11 interface jacks (see FIG. 3, each home devices RJ11 switch must use RJ-11 telephone interface jacks in order to tap into twisted pair 21 towards HPNA module; see col. 7, lines 60-67; see col. 13, lines 23-27).

one or more modular plug-and-play interfaces for interfacing with other external devices (see col. 4, lines 20-35; note that internal and external interfaces of the gateway are in the form of the plug-in cards. Thus, it is clear **that they are plug-and-play interfaces**)

Edson'581 does not explicitly disclose a display interface for displaying the information from the one or more networks.

However, the above-mentioned claimed limitations are taught by Jarett'120. In particular, Jarett'120 disclose a wireless communications interface (see FIG. 3, Cordless Cellular Transceiver 23) for connecting to external wireless devices (see FIG. 2, cordless Mobile stations 12); see col. 7, lines 5-16, 49-55;

a removable display unit (see FIG. 3, LCD Display 33) for displaying the information from the one or more networks (see col. 9, lines 5-15; see col. 20, lines 50-65; see FIG. 5, LCD display 56 of the mobile station 12; note that the LCD display 33 of the cordless gateway base station and the LCD display 56 of the mobile station 12 display the same information about the network when the mobile unit is rested on the cordless base station cradle. Thus, LCD display 33 comprises a remote/removable LCD display 56 from the networks);

a portable multi-function handset performs the function of at least one of a cordless phone, a mobile phone, a web phone, or a walkie-talkie radio (see FIG. 1 and FIG. 5; Cordless phone 12; see col. 12, lines 5-44).

Note that Edson'581 teaches that a home gateway system can be implemented with a wireless internal media. Jarett'120 teaches a cordless gateway base station with the modem which couples to the public network, a LCD to display the network information, and connects to the home wireless mobile units. In view of this, having the system of Edson'581 and then given the teaching of Jarett'120, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Edson'581, for the purpose of providing a home gateway system with a display and wireless connection to the wireless devices and providing the wireless devices with the capability to communicate with both home gateway base station and the cellular base station, as taught by Jarett'120, since Jarett'120 states the advantages/benefits at col. 2, lines 24-30, see col. 3, lines 25-27 that it would reduce the cost of the hardware and software implementation to operate the cordless cellular base station. The motivation being that by utilizing the LCD to display the caller and calling party information at the gateway unit, it can increase the subscriber's ability to monitor the call. Also, The motivation being that by utilizing the wireless interface at the gateway unit in order to communicate with other external wireless devices, it can reduce the cost of extra wiring in the home.

Neither Edson'581 nor Jarett'120 explicitly discloses wherein the display interface displays and accesses voice, video and data messages; wherein the keypad is a key pad for entering an alpha-numeric data; an optional video camera for sending and receiving video data to and from the one or more networks;

However, the above-mentioned claimed limitations are taught by Gerszberg'531. In particular, Gerszberg'531 discloses wherein the display interface (see FIG. 3A-B and FIG. 14, Touch screen Display 141) displays and accesses voice, video and data messages (see FIG. 22; note that the touch screen 141 display and accesses a list of voice, video, and e-mail messages; see col. 12, lines 60 to see col. 13, lines 16; see col. 36, lines 65 to see col. 37, lines 50.);

a keypad (see FIG. 3A-B, Touch screen Display 141 comprising a virtual keypad 162) for entering an alpha-numeric data (see FIG. 14, an alpha-numeric key pad 162; see col. 12, lines 60 to col. 13, lines 16);

an optional video camera for sending and receiving video data to and from the one or more networks (see Gerszberg'531 FIG. 3A-B, a video camera 145 sends and receives data to/from networks; see col. 12, lines 38-48).

In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Gerszberg'531, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing display interface which displays and access voice, video, and e-mail messages to the device, as

Art Unit: 2661

taught by Gerszberg'531, since Gerszberg'531 states the advantages/benefits at col. 2, lines 44-54 that it would provide an intergraded device which provides integrated access to the services into a single platform with a user friendly interface. The motivation being that by providing a integrated display with an interface which displays and access voice, video, and e-mail messages, it can reduce the cost and increase the user ability to access multiple services from one interface display.

In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Gerszberg'531, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing display interface which displays a touch screen key pad, as taught by Gerszberg'531, since Gerszberg'531 states the advantages/benefits at col. 2, lines 44-54 that it would provide an intergraded device with a touch-sensitive screen display for interactively displaying video and accompanying signals and menu screens such as keypads. The motivation being that by providing a touch-sensitive display screen with a virtual keypad, it can increase the user ability to access multiple menu and services from one interface display.

In view of this, having the combined system of Edson'581 and Jarett'120, then given the teaching of Gerszberg'531, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing a video camera, as taught by Gerszberg'531, since Gerszberg'531 states the advantages/benefits at col.

Art Unit: 2661

39, lines 20-35 that it would provide a parental control to monitor the children, and per col. 13, lines 1-4, it would provide for viewing a person to whom a user is speaking at each end. The motivation being that by providing a video camera, it can increase the user ability to view the called and calling parties during the call and increase the capability to monitor the children.

Neither Edson'581, Jarett'120, nor Gerszberg'531 explicitly discloses a Bluetooth module for interfacing with wireless devices using the Bluetooth wireless protocol (see Treyz'215 FIG. 2, Residential gateway 45 comprising a bluetooth wireless interface; see Treyz'215 col. 11, line 1-12; also note that when the residential gateway has a Bluetooth interface, it must be interfaced with Bluetooth wireless device);

one or more short-range or long-range wireless interfaces for interfacing with external wireless devices (see Treyz'215 FIG. 2, Residential gateway 45 comprising a short-range wireless interface link 48 such as HomeRF or Bluetooth in order to communicate with external wireless device 12d; see Treyz'215 col. 10, lines 1-26).

However, the above-mentioned claimed limitations are taught by Treyz'215. In view of this, having the combined system of Edson'581, Jarett'120 and Gerszberg'531, then given the teaching of Treyz'215, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Edson'581 and Jarett'120, for the purpose of providing a bluetooth wireless interface to the residential gateway and for the purpose of providing a bluetooth wireless interface with the short range interface to the



residential gateway, as taught by Treyz'215, since Treyz'215 states the advantages/benefits at col. 10, lines 10-24, col. 9, lines 50-65 that it would provide an alternative way of wireless transmission which can be used to communicate with residential devices. The motivation being that by utilizing bluetooth technology, it can increase the capability of communicating with the other home devices wirelessly.

***Allowable Subject Matter***

13. Claims 38-40 are allowed.
14. Claim 27, 29 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

15. Applicant's arguments filed 12-12-2004 have been fully considered but they are not persuasive.

**Regarding claims 1-26,28,30,32-37, the applicant argued that, "... Edson does not teach or suggest ... a home gateway interface for initializing broadband communications service configurations and provisions, for providing routing or bridging for networking communications..." in page 22, last paragraph.**

**In response to applicant's argument, the examiner respectfully disagrees that Edson does not above claimed limitations. In particular, Edson teaches a home gateway interface (see FIG. 2, a combined system of power line**

Art Unit: 2661

**interface 123, Other interface 125, HPNA interface 121, router 103, Storage 107; see col. 9, lines 7-14) for initializing broadband communications service configurations and provisions (see col. 10, lines 1-65; note that the combined system initializes/processes/starts the broadband/DSL/CATV communications services configurations and provisions/requirements by converting between the user's data protocol (i.e. CATV video, voice, or data) to the protocol that can communicate with the external network (i.e. DSL, CATV, or X-Link); see col. 5, lines 45 to col. 6, lines 50);**

**for providing routing or bridging for networking communications (see col. 9, lines 52-63, see col. 10, lines 45-67; note that the router 103 routes the networking communication data between internal interfaces and the external network interfaces).**

**Regarding claims 1-26,28,30,32-37, the applicant argued that,**  
“...initializes broadband communications services configuration and provision... This is done automatically in the applicant device (e.g. via provisioning manager module 164)...” in page 23, paragraph 3; and page 25, paragraph 3-4.

**In response to applicant's argument** that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., **This (i.e. broadband communications services configuration and provision) is done automatically in the applicant device (e.g. via provisioning manager module 164))** are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not

read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

**Regarding claims 1-26,28,30,32-37, the applicant argued that, "...Edson teaches away from the element of the applicant's claim. The gateway 13 taught by Edson does not "initialized broadband communications service configurations and provisions"...**

instead Edson teaches...the network 11 executes the necessary configuration routines and automatically enables communications for the new device (col. 11, lines 14-19)...Thus, Edson teaches the network 11 and not the gateway 13...

Edson teaches away from the applicant's invention with automatically initializes broadband communication service configuration and provision in the gateway interface..." in page 24, paragraph 2; page 25, paragraph 4,5; and page 26, paragraph 2.

**In response to applicant's argument, the examiner respectfully disagrees** that Edson does not teach above argued limitations, and the argued limitations are clearly disclosed in Edson as stated in above response.

Examiner also respectfully disagrees that Edson teaches the network 11 and the gateway 13 is performing automatically initializes broadband communication service configuration and provision in the gateway interface. The gateway comprises CPU, the gateway software, operating system, and communication applications; see FIG. 1. *The operating system and communication applications are designed to automatically detect a new device and interface to configure when connected to*

*network 11 and to interact with such a new device interface to configure the gateway and the new interface to enable communication through the system, see col. 11, lines 3-14, The gateway 13 is the only device with CPU, the gateway software, operating system, and communication applications. Thus, One skilled in the ordinary art would clearly recognized that, gateway 13 is performing "automatically initializes broadband communication service configuration and provision in the gateway interface", since neither the appliance 41, TV 42, telephone 32, nor alarm system 34 has a capability or intelligent to manage the in-home communication system as a whole. Thus, Edson teaches exactly and clearly the applicant's argued limitations.*

**Regarding claims 1-26,28,30,32-37, the applicant argued that, "...the examiner, by his own words admits, "the combined system initializes/process/starts the broadband/DSL/CATV communications services configuration" and not specifically the gateway 13 taught by Edson..." in page 24, paragraph 5.**

**In response to applicant's argument,** the first office action, page 4, clearly recites the **"the combined system"** as a home gateway interface (see FIG. 2, a **combined system of power line interface 123, Other interface 125, HPNA interface 121, router 103, Storage 107; see col. 9, lines 7-14**). One skilled in the ordinary art would clearly recognized that, according to FIG. 2, "power line interface 123, Other interface 125, HPNA interface 121, router 103, Storage 107" are within the gateway 13. Thus, it should be clear to one skilled in the ordinary art that "a combined system" is "the gateway 13".

**Regarding claims 1-26,28,30,32-37, the applicant argued that, "... This teaches away ... the applicant's invention which removed the need for a user to configure the network or the home gateway by providing a device that automatically initializes broadband communications service configuration and provisioning them..."** in page 25, paragraph 2; and page 26, paragraph 2.

**In response to applicant's argument** that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., **which removed the need for a user to configure the network or the home gateway by providing a device that automatically**) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Moreover, even if they are recited in the claim, Edson still teaches "automatic" provisioning features **"without the user intervention"** as described in above responses. Thus, Edson teaches exactly and clearly the applicant's argued limitations.

**Regarding claims 1-26,28,30,32-37, the applicant argued that, "... Jarett directly teaches away from the applicant invention which includes a phone-based home gateway system that supports automatic initialization and provisioning of wireless and wired broadband and narrow band devices without pre-registration requirement for any devices, supports both (e.g. POTS) and digital communications and supports more than one set of transmit and receives**

**frequency channels a one time (e.g. DSL, ATM)...the invention was created in part to automatically initializes provision multiple broadband communications channels including multiple virtual broadband communication channels..."** in page 28, paragraph 3 to page 29, paragraph 1.

**In response to applicant's argument** that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., **which includes a phone-based home gateway system that supports automatic initialization and provisioning of wireless and wired broadband and narrow band devices without pre-registration requirement for any devices, supports both (e.g. POTS) and digital communications and supports more than one set of transmit and receives frequency channels a one time (e.g. DSL, ATM)...the invention was created in part to automatically initializes provision multiple broadband communications channels including multiple virtual broadband communication channels**) are not recited in the rejected claim(s).

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Note that Jarrett reference is used to provide a display on the home gateway system. Examiner is not combining to address the above-unclaimed limitations. Thus, Jarrett has no reason to teach away from the invention.

**Regarding claims 1-26,28,30,32-37, the applicant argued that, "...there is no motivation to combined Jarrett with Edson...the reduce cost asserted by the**

Art Unit: 2661

examiner also includes reduced functionality described above that teaches away from the applicant's invention..." in page 29, paragraph 3; page 32, paragraph 1.

**In response to applicant's argument** that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation is disclosed in col. Jarett 2, lines 24-30, see col. 3, lines 25-27 that it would reduce the cost of the hardware and software implementation to operate the cordless cellular base station. The motivation being that by utilizing the LCD to display the caller and calling party information at the gateway unit, it can increase the subscriber's ability to monitor the call. Also, The motivation being that by utilizing the wireless interface at the gateway unit in order to communicate with other external wireless devices, it can reduce the cost of extra wiring in the home. Thus, one skilled in the ordinary art would clearly recognize that there are many motivations for providing a display in the home gateway system, as described above.

Regarding "reduce functionally that teaches away from the invention" argument, the applicant arguing and referring to the limitations that are not being

Art Unit: 2661

claimed, as recited in above response. Thus, the combined system of Edson and Jarett clearly teaches the applicant's invention.

**Regarding claims 1-26,28,30,32-37, the applicant argued that, "...Edson teaches. ...gateway 13 mounts between the studs....Thus, Edson teaches away from the motivation...it would not increase the subscriber's ability to monitor the call because the gateway of Edson is either mounted in a wall between studs or placed on the floor...LCD of Jarett would not increase the subscriber ability to monitor a call....the invention which provides...a display interface that is placed on a table or counter for easy use and viewing of information on the display interface..."** in page 30, paragraph 2-3.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., **a display interface that is placed on a table or counter for easy use and viewing of information on the display interface**) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Thus, regarding the argument of a specific location of the gateway and the motivation will be irrelevant since applicant is not claiming the specific location of the gateway nor the display interface. Even if the applicant claim a specific location of the home gateway and the display interface, it would not define a patentable distinct invention over that in the combined system of Edson and Jarett since both the



Art Unit: 2661

invention as a whole and the combined system of Edson and Jarett are directed to home gateway system. The degree in which determining where to place the gateway at home presents no new or unexpected results, so long as the home devices are communicated to the network via home gateway and the display interface displays the information in a successful way. Therefore, to place a home gateway and the display at a specific at home would have been routine experimentation and optimization in the absence of criticality.

**Regarding claims 1-26,28,30,32-37, the applicant argued that, "...first adding the wireless interface of Jarett to Edson still does not teach the same wireless interface taught by applicant...applicant wireless interface supports both analog and digital traffic and was to ....without any pre-registration or user configuration..."** page 31, paraphrase 2.

**In response to applicant's argument** that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., **applicant wireless interface supports both analog and digital traffic and was to ....without any pre-registration or user configuration**) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In view of the above, **the examiner respectfully disagrees** with applicant's argument and believes that the combination of references as set forth in the 103

rejections are proper, thus, Claims 1-26,28,30,32-37 are obvious over Edson in view of Jarett for at least the reasons discussed above.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian N Moore whose telephone number is 571-272-3085. The examiner can normally be reached on M-F: 9:00 AM - 6:00 PM.

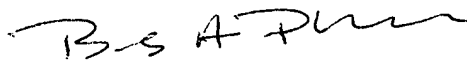
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Application/Control Number: 09/773,103  
Art Unit: 2661

Page 39

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